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**ASmith**  
CORPORATION

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**september, 1969**



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	Page
Financial Highlights .....	2
Six Month Review .....	3
The Company .....	4
Chronological Briefs .....	5
Financial .....	6
Objectives .....	6
Sales and Earnings .....	6
Dividends .....	6
Stockholders' Equity .....	6
Increase In Authorized Shares .....	6
Stock Price Range .....	6
Assets and Liabilities .....	6
Long Term Debt .....	6
Capital Expenditures .....	6
Financial Charts .....	7
Sales Volume by Product Line .....	7
Ten-Year Financial Summary .....	8-9
Profit Center Concept .....	10
Marketing .....	11
Markets Served .....	12-13-14
Research and Development .....	15
Divisions, Products and Locations .....	16-17
Directors and Officers .....	18-19
History .....	20

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**six months ended june 30**

	1969	1968	% Change
Net Sales .....	\$181,032,000	\$198,639,000	— 9.7*
Net Earnings .....	8,018,000	5,991,000	+ 33.9
Net Earnings Per Share .....	3.21	2.41	+ 33.2
Cash Dividends Per Share .....	.70	.60	+ 16.7

*\*Reflects transfer of certain operations to affiliate companies whose sales are not consolidated in A. O. Smith statements.*

**year ended december 31**

	1968	1967	% Change
Net Sales .....	\$372,797,673	\$329,976,263	+ 13.0
Net Earnings .....	11,642,613	9,627,397	+ 20.9
Net Earnings Per Share .....	4.68	3.87	+ 20.9
Cash Dividends Per Share .....	1.30	1.20	+ 8.3
Working Capital .....	84,739,068	79,725,035	+ 6.28
Total Stockholders' Equity .....	127,955,825	119,440,005	+ 7.12
Stockholders' Equity Per Share .....	51.38	48.07	+ 6.88
Number of Stockholders .....	5,500	6,000	— 9.1
Shares Outstanding .....	2,490,442	2,368,543	+ 5.14



Earnings of A. O. Smith continued their upward progress in the first six months of 1969, climbing about 34 percent above the comparable period in 1968.

Earnings for the first half ended June 30, 1969, were \$8,018,000, or \$3.21 per share, compared with \$5,991,000, or \$2.41 per share, last year.

The earnings gain came despite a decrease in sales, caused by the transfer of certain operations to affiliate companies. Sales of affiliates are not consolidated in A. O. Smith statements, but earnings are reflected on an equity in earnings basis.

Sales no longer reported include line pipe, manufactured by affiliate A. O. Smith Corporation Of Texas, and reinforced plastics and metal powder, manufactured by the recently formed A. O. Smith-Inland Inc.

First half sales were \$181 million, compared with \$199 million in 1968.

A strong air conditioning market helped the company's Electric Motor division attain significant increases in sales and profits in the first half. Likewise, the Consumer Products division, which makes water heating and heating equipment, and A. O. Smith Harvestore Products, Inc., a subsidiary, which makes agricultural and bulk storage and handling systems, also demonstrated healthy improvements in both sales and earnings.

The Automotive division, which manufactures automobile and truck frames, completed one of the smoothest and most successful model changeovers in its history. The division had a good first half, despite strikes at several customer plants.

There were two important developments in the first half affecting the company's international business.

A. O. Smith Harvestore Products, Inc., conducted preliminary negotiations with Rotary Hoes Limited of the United Kingdom regarding international aspects of the Harvestore business. And, the Japanese government approved licensing of water heater manufacturing in Japan and A. O. Smith acquired a 40 percent equity in a company to be formed with Tada Metal Industry Co., Ltd., to make A. O. Smith water heaters.

## the company

A. O. Smith Corporation is a publicly-owned manufacturer of a wide variety of products for the farm, home and industry.

Headquarters and A. O. Smith's largest manufacturing operation are in Milwaukee, where the company was founded 95 years ago. Additionally, the company has 19 plants in the United States and other countries which it operates directly or in partnership with other firms.

A. O. Smith has long been known as one of the world's largest makers of automotive and truck frames, although diversification has somewhat reduced the company's dependence on this end of its business. In 1968, 46 percent of the company's sales volume was to the automotive industry and 54 percent was divided among tubular products, meter systems, electric motors, electrical controls, consumer products, Harvestore storage systems and other products.

A. O. Smith is an engineering-oriented company, constantly alert to the needs brought about by change. Major technological advances pioneered by the company include the tubular bicycle frame, the coated welding rod, the pressed steel automobile frame, a process for fusing glass to steel that revolutionized the water heater industry, the Harvestore storage system, a corrosion-proof pipe made of glass and resin, and steel powder for forming parts which require little or no machining.

In recent years, A. O. Smith has increasingly stressed programs directed toward achieving greater profitability, while effecting sound and orderly growth. Toward that end, the company has phased out \$60 million in sales, including its private label water heater business, sold its welding products and glass coated chemical processing equipment businesses, and discontinued the manufacture of glass-lined beer tanks, heavy process equipment and water softeners.

Emphasis has also been directed toward the planning function of the company's business. This planning involves the development of both short-range and long-range goals and objectives for all levels of management, as well as for the corporation itself. Progress is checked by a system of regular controls and spurred by incentive compensation.

As a result of these programs — and others that are detailed elsewhere in this Fact Book — A. O. Smith's net and per-share earnings have shown meaningful increases in each of the past four years, with an additional increase projected for 1969.

The company maintains management responsibility for its two domestic affiliate operations, A. O. Smith-Inland Inc., and A. O. Smith Corporation Of Texas.



## chronological facts

- 1874 — The business was founded in Milwaukee as a machine shop. Became C. J. Smith & Sons in 1885 and incorporated in New York State in 1916 as A. O. Smith Corporation.
- 1889 — Developed first lightweight bicycle frame from tubular steel, became largest American maker of bicycle parts.
- 1899 — Introduced first pressed steel auto frame. First mass production frame line in 1907 and first truck frame in 1911.
- 1917-18—Largest U. S. manufacturer of bomb casings during World War I.
- 1918 — Developed first coated welding rod in U. S., major breakthrough in mass-production welding. Perfected new method of arc welding.
- 1921 — Unveiled first fully automated frame assembly plant, turned out 7,500 a day.
- 1927 — Perfected manufacture of large diameter line pipe from steel plate, launching transcontinental pipeline system.
- 1920's - Experimented with process for fusing glass to steel and introduced its first commercial application (brewery storage tank) in 1933.
- 1936 — Developed a method of cold compressing steel pipe for high strength oil well casing.
- 1937 — Entered meter systems field.
- 1939 — Produced first of more than 10 million A. O. Smith glass-lined water heaters.
- 1940 — Entered electric motor business through acquisition. Principal market is air conditioning and refrigeration industry.
- 1941-45—Made nearly five million bomb casings.
- 1946 — Invented the Harvestore automated animal feed storage system.
- 1959 — Invented the process for manufacturing glass fiber reinforced plastic pipe.
- 1961 — Invented the Hydra-Buff cushioning device for railroad freight cars.
- 1962 — Acquired Clark Controller Company, electrical equipment manufacturer in field of systems control.
- 1964 — Developed Cardcon, a solid state electronic system for controlling access and recording transactions at bulk petroleum terminals.
- 1965 — Dramatic turnaround in earnings as prelude to four consecutive years of improvement. Earnings of \$7.9 million, or \$3.18 per share, compared with \$1.5 million, or 61 cents, previous year.
- 1966 — Invented a process for producing a high quality steel powder, an improved metallurgical development for production of precision parts with little or no machining.
- 1968 — Fourth year of earnings increase. Net earnings reach \$11.6 million, or \$4.68 per share, on sales of \$373 million.
- 1969 — Stockholders at annual meeting vote to increase common shares from 3 million to 6 million and authorize new class of 1 million shares preferred stock.
- 1969 — A. O. Smith-Inland Inc. formed to produce and market steel powder and glass fiber reinforced plastic products.
- 1969 — First half earnings increase 34 percent, to \$8 million, or \$3.21 per share.



## financial

**OBJECTIVES** Foremost in management thought at A. O. Smith is profit improvement. The company intends to develop an improved balance in its overall business so that no one market holds a dominant position. Therefore, greater growth emphasis will be placed on the industrial, agricultural and consumer markets. Of course, the firm's automotive business will continue to occupy an important position as these other areas begin to contribute increasingly higher percentages to overall sales.

Such a sales picture is expected to go a long way toward minimizing the cyclical performance of earnings, which at times in the past have been tied closely to the fortunes of the auto industry.

At A. O. Smith, planning for the future is a continuous activity. Goals are spelled out in a "Forward Plan" which details what the company expects of itself as a whole and from each of its operating divisions for the coming five years.

As a complement to the internal growth of its present product lines, the company is considering possible acquisitions in compatible fields.

### first half — 1969

**INCOME** Net income for the six months ended June 30, 1969, was \$8,018,000, or \$3.21 per share. That represented a 34 percent increase over earnings of \$5,991,000, or \$2.41 per share, in the first half of 1968. Net income includes earning of 50 percent affiliates on an equity in earning basis.

**SALES** Sales in the first half decreased to \$181,032,000 from \$198,639,000 a year earlier. This decrease was due to the transfer of certain operations to affiliate companies whose sales are not consolidated in A. O. Smith statements.

### whole year — 1968

**INCOME** Net income for the year 1968 was \$11,642,613, or \$4.68 per share. This was a 21 percent increase over 1967 earnings of \$9,627,397, or \$3.87 per share, and marked the fourth consecutive year in which the company's earnings have shown improvement. The steady upward trend is attributed to the execution of a carefully planned program of phasing out unprofitable operations, and tightening up and streamlining others.

**SALES** Net sales in 1968 amounted to \$372,797,673, a 13 percent increase over 1967 sales of \$329,976,263 and well ahead of the previous company sales record of \$358,441,000 established in 1965. The profit gains from 1965 through 1968 have been due to a number of factors, not the least of which is a change in the company's sales base. This has involved putting greater emphasis on the company's businesses which have promising growth areas, while maintaining the continuing progression of its automobile and truck frame business. A breakdown of the company's sales volume by product line is on page 7.

**DIVIDENDS** The company has paid dividends without interruption since 1940. In July, 1968, it declared a quarterly

dividend of 35 cents, establishing a new rate of \$1.40 annually. This was an increase from 30 cents in the first quarter of the year, and from the \$1.20 rate paid in 1967 and \$1.15 in 1966. Cash dividends in 1968 totaled \$3,198,167 and represented 27.5 percent of earnings. Five percent stock dividends were issued in 1966, 1967 and 1968, but have now been discontinued.

**STOCKHOLDERS' EQUITY** As of January 1, 1969, there were 2,490,442 shares outstanding at \$10 par value, excluding 14,919 shares of treasury stock. Total shareholder equity at the close of 1968 amounted to \$127,955,825, compared with \$119,440,005 in 1967. Book value of the stock was \$51.38 per share. The Smith Investment Company owns about 53 percent of the common stock.

**INCREASE IN AUTHORIZED SHARES** Stockholders at the annual meeting in April, 1969, voted to increase the number of common shares from 3,000,000 to 6,000,000 and authorized a new class of 1,000,000 shares of preferred stock. While there were no plans at that time to issue the new shares, they give the company greater flexibility for possible acquisitions or other corporate purposes. At the same time, par value of A. O. Smith common stock was reduced to \$5.00 per share.

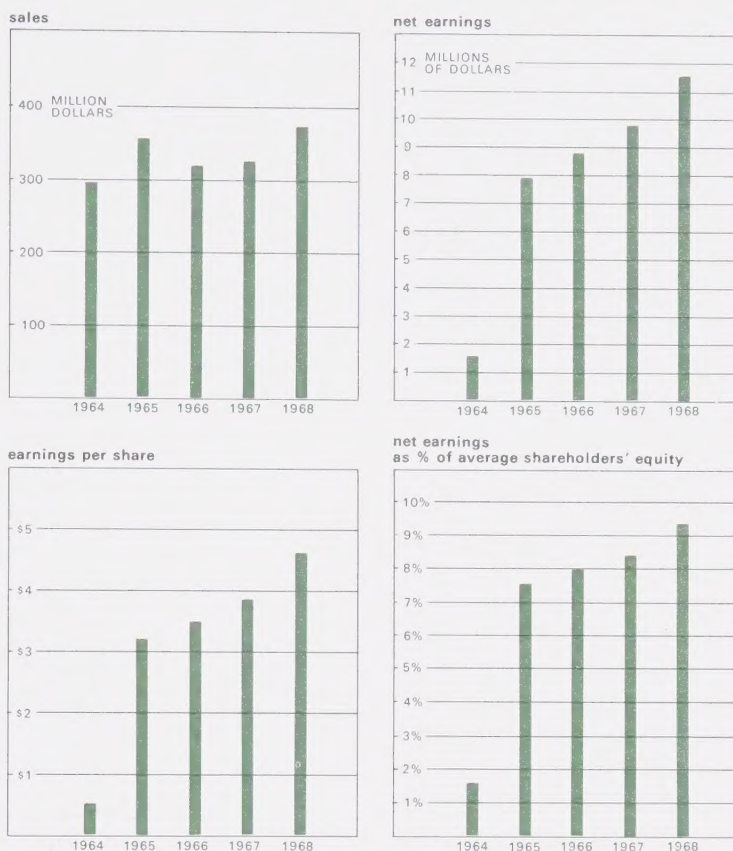
**STOCK PRICE RANGE** A. O. Smith stock is traded on the New York Stock Exchange under the symbol SMC and the company's approximately 5,500 shareowners are located in all 50 states and abroad. The price range in 1968 was from 32¼ to 52¼. The range for the first six months of 1969 was from 39½ to 50. Stock transfer agent is Manufacturers Hanover Trust Co., New York, and the registrar is The Chase Manhattan Bank, New York.

**ASSETS AND LIABILITIES** At the end of 1968, current assets totaled \$134,643,829 and current liabilities \$49,904,761, a ratio of 2.7 to 1. Current assets increased by \$17,367,819 during the year, while current liabilities increased by \$12,353,886. Working capital amounted to \$84,739,068, about \$5,014,000 higher than a year earlier. Cash and marketable securities totaled \$28,705,876. Total assets at the end of the year stood at \$211,676,505, compared with \$191,931,254 in 1967.

**LONG TERM DEBT** The company has a long-term debt obligation of \$28,481,000, reduced from \$30,348,000 at the end of 1967. Of this total, \$22,400,000 is in long-term notes with final maturity in 1983, and \$6,081,000 is in long-term lease obligations expiring from 1983 to 1986.

**CAPITAL EXPENDITURES** To sustain its growth in its business, capital expenditures have risen significantly in recent years. From 1964 through 1968, the company invested about \$60,000,000 for new plant, property and equipment. Of this total, \$9,258,452 was spent in 1968. Gross plant and equipment expenditures amounted to \$160,457,000 at the end of 1968. The company has adopted the straight-line method of recording depreciation provisions, beginning with acquisitions made after December 31, 1966. The change had little effect on 1968 earnings.





A. O. SMITH CORPORATION  
SALES VOLUME BY PRODUCT LINE  
(000 omitted)

PRODUCT DIVISIONS	1968 SALES	%
Automotive .....	\$171,000	46
Tubular Products .....	51,000	13
Electric Motors .....	34,000	9
Consumer Products .....	28,000	8
Electrical Controls .....	25,000	7
Harvestore .....	25,000	7
Meter Systems .....	20,000	5
SUB-TOTAL .....	\$354,000	95
All Other Product Divisions .....	19,000	5
TOTAL .....	\$373,000	100

Sales of A. O. Smith Corporation Of Texas (not consolidated)

Line Pipe .....	\$ 41,100
Bomb Casings .....	53,100
	<u>\$ 94,200</u>

**A. O. Smith Corporation**  
**ten year financial summary** (\$000 omitted except for per share values)

	1968	1967	1966	1965
Net Sales .....	372,798	329,976	318,433	358,441
Net Earnings .....	11,643	9,627	8,738	7,918
Per Share (2) .....	4.68	3.87	3.51	3.18
As % of Sales .....	3.1%	2.9%	2.7%	2.2%
As % of Average Stockholders' Equity ..	9.4%	8.4%	8.0%	7.6%
Cash Flow (Earnings and Depreciation Only)	21,518	19,799	17,580	17,493
Per Share (2) .....	8.65	7.96	7.07	7.03
Cash Dividends .....	3,198	2,808	2,567	2,148
Per Share (As Declared) .....	1.30	1.20	1.15	1.00
Per Share (2) .....	1.29	1.13	1.03	.86
As % of Net Earnings .....	27.5%	29.2%	29.4%	27.1%
Stock Dividends .....	5%	5%	5%	—
Working Capital				
Cash and Marketable Securities .....	28,706	8,299	9,558	14,155
Receivables .....	42,766	41,598	39,415	35,520
Inventories and Other Assets .....	63,172	67,379	67,866	59,178
Total Current Assets .....	134,644	117,276	116,839	108,853
Current Liabilities .....	49,905	37,551	38,509	31,507
Net Working Capital .....	84,739	79,725	78,330	77,346
Current Ratio .....	2.7	3.1	3.0	3.5
Capitalization				
Stockholders' Equity .....	127,956	119,440	112,621	106,445
Book Value Per Share (3) .....	51.38	48.07	45.33	42.85
Long-Term Debt:				
Notes Payable .....	22,400	24,000	27,000	31,000
Lease Purchase Obligations .....	6,081	6,348	6,601	—
Total Long-Term Debt .....	28,481	30,348	33,601	31,000
Total Capital .....	156,437	149,788	146,222	137,445
Long-Term Debt As % of Total Capital..	18.2%	20.3%	23.0%	22.6%
Plant and Equipment				
Gross .....	160,457	157,040	151,165	128,610
Accumulated Depreciation .....	96,442	91,385	85,919	77,933
Net .....	64,015	65,655	65,246	50,677
Capital Expenditures .....	9,258	10,979	16,318	6,596
Annual Depreciation .....	9,875	10,172	8,842	9,575
Average Number of Employees .....	13,754	13,728	13,356	14,752

(1) In 1963 the Company changed its fiscal year from July 31 to December 31.

Data shown is for the short period August 1, 1963 to December 31, 1963.

(2) Net Earnings, Cash-Flow, and Cash Dividends Per Share are based on aver-



1964	1963 (1)	1963	1962	1961	1960	1959
299,852	112,585	281,819	249,053	221,952	265,178	283,650
1,512	1,819	5,513	5,922	(1,370)	5,557	13,082
.61	.73	2.22	2.38	(.55)	2.23	5.26
.5%	1.6%	2.0%	2.4%	—	2.1%	4.6%
1.5%	1.8%	5.6%	6.0%	—	5.6%	13.8%
10,387	5,361	13,664	14,501	6,799	12,936	19,934
4.18	2.16	5.49	5.83	2.73	5.20	8.02
2,147	536	2,145	2,145	3,415	4,173	3,283
1.00	.25	1.00	1.00	1.60	2.00	1.60
.86	.22	.86	.86	1.37	1.68	1.32
142.0%	29.5%	38.9%	36.2%	—	75.1%	25.1%
—	—	—	—	2%	2%	2%
7,434	12,313	10,198	9,175	14,891	11,546	11,841
38,947	36,322	36,262	32,555	22,155	25,627	24,681
62,811	49,919	54,168	44,657	39,659	45,171	48,205
109,192	98,554	100,628	86,387	76,705	82,344	84,727
42,874	22,508	23,726	19,536	15,323	16,591	17,599
66,318	76,046	76,902	66,851	61,382	65,753	67,128
2.5	4.4	4.2	4.4	5.0	5.0	4.8
100,675	102,498	101,216	101,740	96,898	101,683	100,299
40.52	41.30	40.79	41.00	39.05	40.98	40.42
32,440	32,570	32,570	25,000	26,000	27,000	28,000
—	—	—	—	—	—	—
32,440	32,570	32,570	25,000	26,000	27,000	28,000
133,115	135,068	133,786	126,740	122,898	128,683	128,299
24.4%	24.1%	24.3%	19.7%	21.2%	21.0%	21.8%
137,012	127,975	126,958	116,200	114,148	110,526	103,596
78,138	74,083	72,258	64,237	60,444	56,429	53,123
58,874	53,892	54,700	51,963	53,704	54,097	50,473
16,657	3,491	8,581	8,422	8,714	12,133	11,133
8,875	3,542	8,151	8,579	8,169	7,379	6,852
14,146	13,091	12,609	11,228	11,668	12,331	12,586

age shares outstanding in each year adjusted for subsequent stock dividends.

(3) Book Value Per Share is based on year-end stockholders' equity and shares outstanding at year-end adjusted for subsequent stock dividends.

**ORGANIZING, PLANNING, AUDITING** A. O. Smith is a decentralized multi-division corporation. The corporate staff provides policy direction, financial control and support and other staff services, but each of the operating divisions, or profit centers, is expected to function as an almost completely independent business.

The flexibility of the divisional profit center concept permits A. O. Smith to make changes in its organization structure to take advantage of profit making opportunities. Therefore, the divisional make-up of the company changes from time to time, depending on such things as new joint venture agreements, acquisitions or divestures, changes in marketing practices or market conditions, new product development and other factors.

Most recently, for instance, A. O. Smith-Inland Inc. was formed with Inland Steel Co. as a 50 percent owned affiliate company and the Powder Metallurgy division and Smith Plastics divisions were transferred to this operation. International operations, formerly a separate division, have been integrated into product divisions, with coordination through corporate policy direction.

Each division is measured against a "Five Year Forward Plan" developed by the division in conjunction with corporate staff. These Forward Plans are really "objectives" in the management by objective system used throughout A. O. Smith. Each fall the Forward Plan is updated by the addition of another year. This means that at all times management is looking at least five years into the future.

Weekly meetings are conducted by the president with corporate executives to review current operations. Each quarter division management meets with corporate management for a formal review of its current operations measured against the Forward Plan.

The divisional Forward Plans are the basis from which the corporate Five Year Forward Plan is drawn and formally adopted.

Corporate management is kept up-to-date on division operations by one of the fastest and most sophisticated financial reporting systems now used by industry. Twice a month the controller's office issues operation summaries to key executives detailing current shipments and profits and projected shipments and profits for the next period. Current figures and projections are posted along side the Forward Plan figures agreed to the previous year. This provides a continual check of current operations against the Forward Plan.

Many non-quantitative aspects of division operations are also measured by corporate officials using a unique management audit program. This program measures 10 functional areas on a grid system of excellent to unsatisfactory. Areas which are audited include product engineering, purchasing, manufacturing, quality control, marketing and personnel, among others. Corporate audit teams ask hundreds of questions about each function, personally visit each location, and review the results of the audit with division management.

The auditing program is used by top management to detect weaknesses in operations well before those weaknesses begin to be felt in the profit and loss statement.



Marketing methods at A. O. Smith are as diverse as the products the company manufactures. Methods of distribution are individually designed to meet the needs of the market place and are changed as the market place changes. Major objective of all distribution systems within A. O. Smith is to furnish the customer his products in the most direct and economical way possible.

**AUTOMOTIVE DIVISION** Automobile and truck frames and other automotive parts are sold directly to original equipment manufacturers. A. O. Smith engineers work closely with automobile and truck manufacturers in designing new model frames and other parts.

**CLARK CONTROL DIVISION** Clark Control division uses two marketing systems. Standard or shelf items, such as push buttons, starters, switches and relays, are marketed through an extensive organization of electrical control distributors and to O.E.M. accounts. Electrical control systems are sold directly to industrial plants and mills, such as those found in the steel industry. Clark has the largest sales force in the company with about 80 men in the field.

**CONSUMER PRODUCTS DIVISION** Residential and commercial glass-lined water heaters and other water heating products of the Consumer Products division are marketed by about 500 utility companies and liquefied petroleum dealers, and by more than 600 independent distributors, who, in turn, serve more than 25,000 dealer outlets.

**ELECTRIC MOTOR DIVISION** A. O. Smith electric motors are sold directly to original equipment manufacturers of such products as air conditioning and refrigeration equipment, water pumping systems and home dishwashers. The motor markets supplied by A. O. Smith require custom-engineered motors which are designed to meet individual specifications of the O.E.M. customers. The company's ability to fulfill this requirement and to deliver promptly has given it a distinct competitive advantage.

**A. O. SMITH HARVESTORE PRODUCTS, INC.** Harvestore systems and other agricultural products of this subsidiary are distributed nationally through 65 franchised dealers. To facilitate the retail sales of its agricultural equipment, Harvestore receives the benefits of a financing subsidiary, AgriStor Credit Corporation. This corporation is organized solely to help farmers and ranchers purchase Harvestore systems and it is not a competitor of local banks or credit agencies.

**INTERNATIONAL** International distribution of all products is handled through a network of 119 foreign distributors, dealers and representatives in 84 countries.

**METER SYSTEMS DIVISION** The Meter Systems division markets its line of rotary positive displacement liquid measuring meters, turbine meters, service station equipment, hydraulic control valves and static charge reducers through a national network of franchised distributors. The foreign markets of this division have been expanding due to greater support to overseas distributors and through the supply of a very broad line of metering and control products.

**RAILROAD PRODUCTS DIVISION** A. O. Smith products manufactured by this division, including Box-weld brake beams, running boards and brake steps, Hydra-Buff end-of-car hydraulic cushion, CR hydraulic cushion for sliding still type cars and other products, are sold through a national distributor of railroad products.

**TUBULAR PRODUCTS DIVISION** Oil and gas well casing is sold directly to producers of petroleum and natural gas, as well as through distributors serving the same industries. Field stocks of casing are maintained at convenient locations.

**PRODUCT SERVICE DIVISION** This division supplies replacement parts and shop repair service at convenient locations around the country for A. O. Smith domestic and commercial water heaters, heating and air conditioning equipment, electric motors, meters and automated systems, gasoline dispensing pumps and Harvestore systems.

**A. O. SMITH-INLAND INC.** The Specialty Products division of A. O. Smith-Inland sells its plastic products directly to original equipment manufacturers in the automotive, construction, farm equipment and other industries, and through a national distributor to railroad equipment manufacturers. Fiber glass reinforced epoxy and vinylester pipe from the Reinforced Plastic division is sold to the oil industry through national distributors, and to the chemical processing industry through regional distributors. Metal powder is marketed directly to manufacturers of metal powder parts.

**A. O. SMITH CORPORATION OF TEXAS** Welded line pipe is sold directly by the A. O. Smith Corporation Of Texas to gas transmission companies and oil companies.

## **markets served**

As a highly diversified manufacturer, A. O. Smith is an active participant in a wide segment of American industry.

In some markets, such as automotive, the company has been a pioneer and innovator for half a century or more. In newer markets depending on evolving technology, such as plastics and metal powder, A. O. Smith is rapidly becoming an important factor.

**AUTOMOTIVE** A. O. Smith is the world's largest independent manufacturer of automotive frames and has supplied frames and other structural parts for many of the 101 million vehicles that travel the nation's 3.7 million miles of streets and highways.

The Automotive division is, in fact, the major contributor to the company's total sales volume, having accounted for \$171 million, or about 46 percent of 1968 sales.

There are about 500 presses in Milwaukee and more than 100 at Granite City, Ill., ranging from 40 to 4,000 tons. They are used in the fabrication of frames, parts, and wheel suspension control arms, another important product of the Automotive division. The company operates a large tool and die facility, which also manufactures tooling for outside firms on a contract basis.

The A. O. Smith-Inland plant at Ionia, Michigan, produces and assembles specialized vehicular bodies and other molded plastic parts for automobiles and trucks.

**RAILROAD** A. O. Smith is an important supplier of products for railroad freight cars, including hydraulic cushioning and shock absorbing devices, brake beams, hatch covers and grating for running boards and end platforms.

A relatively new product, introduced in 1965, is the glass fiber reinforced plastic hopper car hatch cover that combines light weight with strength and corrosion resistance. These covers, now manufactured by A. O. Smith-Inland, have been installed on more than 18,000 freight cars. In the area of glass fiber products, A. O. Smith-Inland has also developed reinforced plastic wall liners for refrigeration cars.



**PETROLEUM AND NATURAL GAS** A. O. Smith's participation in the petroleum industry starts at the well and ends at the gas pump. Along the route, it involves oil well casing for deep wells, welded line pipe, valves, meters, electronic control systems, data-providing devices and gasoline pumps.

A. O. Smith products, in fact, bring the oil up from the ground, carry it to the process plant, move it across the nation, measure it, and distribute it to the ultimate user.

Over the past 40 years, A. O. Smith has produced more than \$2 billion worth of products for the petroleum industry. The company's development of mass production methods for making large diameter steel pipe was instrumental in the growth of the natural gas industry and the introduction of the nation's transcontinental pipeline system.

A. O. Smith also has led much of the development of high-strength oil well casing and is the leading specialist in this field. This has been particularly important in recent years because of the increasing depths of oil and gas wells.

A recent innovation was the development of glass reinforced epoxy and vinylester pipe. In addition to many uses in the oil fields, plastic pipe is now being inserted into older iron gas mains as an economical alternative to replacing the worn pipe.

In yet another area — meters — A. O. Smith is benefiting from the ever-increasing demand for expansion and improvement of oil terminal facilities, particularly in the Middle East and Africa.

**AGRICULTURE** American agriculture is changing. A. O. Smith Harvestore Products, Inc., a subsidiary, has become a leader in the automation of the farm. Harvestore feed storage and processing systems offer a mechanical means for storing and handling livestock feed. These glass-lined structures provide the farm businessman with the most advanced technology for permitting more efficient utilization of crops, which maintain high nutritional value from the time of storage until use.

A. O. Smith's principal interest in the agricultural industry lies in beef and dairy farming. The company contributes importantly to this giant industry with its systems for storage and handling of grains and forage. More than 25,000 of the blue Harvestore glass-lined, controlled feed storage and handling structures are now a part of the rural landscape. They offer efficiencies for both the small family farmer and for large feedlot enterprises through efficient utilization of crops. Mechanical bottom unloading and, in larger applications, automated stock feeding systems, have made possible the automated barnyard.

The company also produces glass-lined industrial bulk storage units similar to the Harvestore which handle fibrous, free and semi-free flowing materials, ranging from tobacco to flour. A salt-handling and storage system is also marketed for winter highway maintenance.

**HEATING** Water heaters have been among A. O. Smith's more profitable areas of operation in the past five years. Sales of water heaters are primarily to the replacement market. In the industry, approximately 4 million home water heaters are sold annually, 2.5 million of them replacement units. A. O. Smith sales of residential water heaters are rising at a rate greater than the industry average and the company has produced more than 10 million units since 1939.

In addition to the home market, A. O. Smith makes commercial water heaters for use in such places as hotels, schools, factories, car washes, swimming pools and multiple-unit dwellings, and gas-fired hydronic boilers for hot water heating systems.

The company is the largest supplier of commercial water heaters, two-thirds of which are made by seven manufacturers serving this \$33 million market. The use of hydronic equipment, whereby hot water is used to heat the home or building, has increased 50 percent in the last 10 years, with about 70 percent going into homes and 30 percent into commercial establishments.

A recent development, in 1968, was the introduction of a new electric residential water heater with a single, low watt density element that performs better and requires less maintenance than the traditional two, high watt density elements. The company also introduced its first electric water heater, engineered from the ground up, specifically for commercial use.

Recently, the company displayed a prototype of the gas or electric water heater of the future, the Capsel, which combines the glass-fused-to-steel concept of interior tank with a new process of bonding an original formula polyurethane to the steel tank to form the outer surface. This will replace the steel outer jacket and conventional insulation material, and will afford the entire heater unique damage-resistance and design characteristics not now possible.

**AIR CONDITIONING AND REFRIGERATION** A. O. Smith is an important supplier to the air conditioning and refrigeration industry, both residential and commercial. Specifically, the company makes hermetic motors, which are sealed into compressors for life. These motors are chiefly used for central control units in homes and commercial operations.

The market potential in this area is dramatized by the fact that only about 5 percent of existing homes have central air conditioning. These systems are now being installed in about 25 percent of all new homes and the market has been growing annually at an average of 20 percent over the last five years. In the commercial market, the annual increase has ranged from 12 to 15 percent.

**PLANT AND MILL** A. O. Smith, through its Clark Control division, is well established as a supplier of electrical controls and systems required in the modern industrial plant and mill.

Clark electrical equipment is used in regulating and controlling entire production lines and industrial processing systems in automobile, steel, rubber and other industries. In addition to the custom-designed and built control systems for industrial, mill and material handling equipment, Clark Control products include contactors, starters, limit switches, relays, pushbuttons, magnetic brakes and air valves, and fire pump controls.

The market for electrical controls is presently about \$600 million, with an annual growth rate of from 6 to 7 percent.

**METAL POWDER USERS** One of the newer products being marketed by A. O. Smith, through a joint venture with Inland Steel Corp., is its patented steel powder.

A. O. Smith has been in the molding powder business since 1966. It perfected methods of producing high-density, molding-grade steel powder, welding-grade powder for the manufacture of electrodes, powder for cutting and scarfing metals, and high-purity ingots. Metal powder is rapidly finding numerous applications, including precision parts for office machines, appliances and automobiles. Parts made from metal powder require little or no machining.

In 1969, A. O. Smith doubled its steel powder capacity from 25,000 to approximately 50,000 tons annually. Total industry volume for metal powder is about 116,000 tons a year — double the 1963 figure — and it is expected to double again by 1973.

**OTHER MARKETS** In addition to the major markets described above, A. O. Smith or its affiliates manufacture a number of products that are utilized in other industries.

The chemical industry, for example, uses A. O. Smith meter systems for process control and plastic pipe for moving highly-corrosive liquids. Plastic pipe is also finding increased uses in the electrical industry.

A. O. Smith electric motors perform a vital function in home dishwashers. The company also makes jet and submersible pump motors used in domestic water systems, and motors for the swimming pool, lawn sprinkler and home workshop markets. All of the motor markets served by the company require highly engineered motors designed to meet individual specifications of original equipment manufacturers.

A. O. Smith Corporation Of Texas is in the military ordnance field, producing 750-pound bomb casings for the Department of Defense.



A. O. Smith places major responsibility for research and development with the individual operating divisions. This concept is based on the belief that the requirements of the immediate future are most clearly apparent to the managers, scientists and engineers who daily are designing, manufacturing and selling A. O. Smith products.

However, the company also maintains a strong and well-staffed central research and development operation at the corporate level. Its function is to evaluate, support and extend the capabilities of the divisions. Central R&D provides broad technical talents in support of divisional projects and also carries on long-range development programs.

The search for a "better way" through research and development has been the major factor in A. O. Smith's growth over the years. Guided by the principles of product improvement, market broadening and new product development, the company's R&D results have often brought about significant changes in the products and manufacturing processes of the industries it serves.

Through the years the company has conducted basic or applied research, development and product engineering in such fields as agricultural biochemistry, analytical chemistry, ceramics, chemical engineering, electricity and magnetism, heat transfer and fluid mechanics, metallurgy, welding, physical chemistry, solid state physics, plastics and adhesives, thermodynamics and others.

Two of the company's more recent product lines resulting from its technological efforts are glass fiber reinforced plastic, and steel powder, both now manufactured by A. O. Smith-Inland Inc., an affiliate. Glass fiber reinforced plastic has applications in corrosion resistant pipe and custom-molded parts. Steel powder, a strong growth product, is the raw material for a growing number of precision parts in the business machine, automotive, appliance and other industries.

A major technical achievement of the company was the development of a process for fusing glass to steel — glass that was flexible enough to withstand the expansion and contraction of metal. This made possible the Harvestore, other storage and agricultural products, Permaglas and Glascote water heating and other water heating units. More than 6,000 different glass formulas have been developed by A. O. Smith. A recent development in this field is the Capsel — a prototype of the water heater of tomorrow. This unit combines the glass-fused-to-steel concept of interior tank with a new process of bonding an original formula polyurethane — Capselite — to the steel tank to form the outer surface.

Among other notable results of research and engineering are the company's high-strength line pipe and extra-strong casing for deep well oil drilling, automated fuel metering systems, solid-state packaged electrical control drives, and hydraulic cushioning devices for railroad freight cars.

A. O. Smith research and engineering is product oriented and conducted by about 700 scientists, engineers and supporting technical personnel in 20 separate laboratories. The central R&D section is located in Milwaukee and is headed by a vice president. Its activities are divided into two sections — new products development and materials research.

**ORGANIZATION** A. O. Smith operations are structured into major groups, each headed by a group vice president who is responsible to the president for the divisions within his individual group. These and other company activities are as follows:

**CONTRACT PRODUCTS GROUP**

Automotive division  
Railroad Products division  
Tubular Products division

**INDUSTRIAL PRODUCTS GROUP**

Clark Control division  
Canadian Controllers, Ltd.  
Electric Motor division  
Meter Systems division

**CONSUMER PRODUCTS GROUP**

Consumer Products division  
A. O. Smith Harvestore Products, Inc.

**OTHER**

Data Systems division  
Electronic Systems division  
Glass Coating Materials division  
Product Service division

**PRODUCTS AND LOCATIONS**

**executive offices**

Milwaukee, Wisconsin

**automotive frames and components**

Passenger automobile frames and structural parts; truck, bus and trailer frames; wheel suspension control arms  
Milwaukee, Wisconsin;  
Granite City, Illinois;  
Manufacturas Metalicas Monterrey  
S. A.\*, Monterrey, N. L., Mexico

**electric motors**

Custom engineered motors for manufacturers of air conditioning, heating and commercial refrigeration equipment, domestic dishwashers, home water pumping systems and other specialized products

Tipp City, Ohio;  
Mount Sterling, Kentucky

**electric controls**

Clark packaged drives and drive systems for industrial processes; electrical controls for industrial and commercial applications

Cleveland, Ohio;  
Lancaster, South Carolina;  
Los Angeles, California;  
Canadian Controllers, Ltd.\*  
Scarborough, Ontario, Canada

**electronic systems**

Electronic key and card control fluid handling and data acquisition systems for petroleum loading and fleet fueling

Menomonee Falls, Wisconsin

**meter systems**

Positive displacement and turbine meters with accessories for liquid flow; liquid control valves; static charge measurement and reduction devices; remote electronic and electro-mechanical readout instruments; gasoline pumps; self-service dispensing systems

Erie, Pennsylvania



**metal powder**

E-M-P molding-grade steel powder for precision parts for automotive, appliance and other industries; electrode-grade iron powder and high purity melting stock

A. O. Smith-Inland Inc.\*\*  
Milwaukee, Wisconsin

**railroad equipment**

Hydra-Buff and Cushion Ride freight car hydraulic cushioning devices; steel running boards and brake steps for freight cars; Boxweld brake beams; other brake equipment; glass fiber reinforced hopper car hatch covers

Milwaukee, Wisconsin

**reinforced plastics**

Specialized bodies, in plastic and steel, and parts for automotive and other transportation industries; other reinforced plastic moldings and assemblies

A. O. Smith-Inland Inc.\*\*  
Ionia, Michigan

Red Thread, Green Thread and Chemline glass fiber reinforced epoxy and vinylester pipe and fittings; glass fiber reinforced electrical and industrial products

A. O. Smith-Inland Inc.\*\*  
Little Rock, Arkansas

**storage and handling systems**

Harvestore glass-fused-to-steel, farm storage systems; Permaglas bulk storage and handling units for commercial, industrial and municipal applications; Water-trol products for water management and soil erosion control; other livestock production equipment

A. O. Smith Harvestore Products, Inc.\*  
Arlington Heights, Illinois;  
Kankakee, Illinois;  
Elkhorn, Wisconsin

**tubular and ordnance**

Oil well casing; welded line pipe; bomb casings

Milwaukee, Wisconsin;  
A. O. Smith Corporation Of Texas\*\*  
Houston, Texas;  
Waco, Texas

**water heating equipment**

Permaglas and Glascote residential and commercial water heaters; Burkay commercial and industrial water heaters; swimming pool heaters; glass-lined storage tanks; hydronic heating equipment

Kankakee, Illinois;  
Stratford, Ontario, Canada;  
Tada Smith Co.\*\*  
Osaka, Japan

**product service**

Chicago, Illinois  
Atlanta, Georgia  
Union, New Jersey

**financing**

AgriStor Credit Corporation\*

*\*Indicates subsidiary*

*\*\*Indicates affiliate operation*

## directors and officers

### DIRECTORS

William O. Beers  
President, Kraftco Corporation  
F. Shepard Cornell  
Retired Executive Vice President  
Elisha Gray II  
Chairman of the Board and Chief Executive Officer,  
Whirlpool Corporation  
Urban T. Kuechle  
President  
James D. Porter  
Lawyer  
Arthur O. Smith  
President, Arthur Smith Industries  
Lloyd B. Smith  
Chairman and Chief Executive Officer  
Morris J. Vollmer  
Vice President, Finance  
Carlton P. Wilson  
President, Robert W. Baird & Co.

### OFFICERS

#### GENERAL OFFICE

Lloyd B. Smith  
Chairman and Chief Executive Officer  
Urban T. Kuechle  
President  
John H. Brinker  
Vice President, Marketing  
Allan C. Crane  
Vice President and Controller  
Thomas H. Creden  
Vice President  
John P. Diesel  
Vice President, Manufacturing and Planning  
Roy A. Dingman  
Vice President, Corporate Relations  
James N. Johnson  
Vice President, Secretary and General Counsel

Charles H. LeClaire  
Vice President, Employee and Public Relations  
Robert F. McGinn  
Vice President, Research and Development  
Robert A. Rietz  
Vice President and Treasurer  
Morris J. Vollmer  
Vice President, Finance  
Richard A. Wendorf  
Vice President, Procurement  
Donald L. Dunaway  
Assistant Treasurer  
John H. Lungren  
Assistant Secretary and Assistant General Counsel  
J. Robert Mitchell  
Assistant Treasurer

### OPERATIONS

Henry O. Allen  
Group Vice President, Industrial Products  
Milton E. Morgan  
Group Vice President, Consumer Products  
Dennis J. O'Connell  
Group Vice President  
John R. Parker  
Group Vice President, Contract Products  
James E. Borchert  
Vice President, Automotive  
Paul R. Ellis  
Vice President  
Wallace T. Halket  
Vice President, Consumer Products  
William R. Heckman  
Vice President, Clark Control  
Waldo W. Higgins  
Vice President, Tubular Products  
John M. Richardson  
Vice President, Electric Motor  
John J. Stahl  
Vice President  
David H. Stieber  
Vice President, Assistant General Manager, Automotive  
Thomas A. Sullivan  
Vice President, Meter Systems

**LLOYD B. SMITH**, chairman and chief executive officer

Mr. Smith, 48, was elected chairman and chief executive officer in April, 1967, the fourth generation of the Smith family to head the firm since it was founded in 1874. He first joined the firm in 1942 and has been associated with all phases of its operations, as well as serving as president; assistant to the president; and vice president, Consumer Products division. He was elected a director in 1945. Mr. Smith is a director of the Goodyear Tire & Rubber Co., the First Wisconsin National Bank and First Wisconsin Bankshares Corporation. Since 1960 he has served on the Business Council (formerly Business Advisory Council for the U. S. Department of Commerce). He attended Yale University's Sheffield Scientific School.

**URBAN T. KUECHLE**, president

Mr. Kuechle, 58, a director since April, 1965, was elected president in April, 1967. He joined A. O. Smith in 1929 while still a student at the University of Wisconsin-Milwaukee. He began his career in the personnel department, then moved to the Automotive division. He has served as general sales manager of the Automotive division; corporate vice president; vice president, Automotive division; vice president, Automotive and Contract Products group; and executive vice president. Mr. Kuechle is a director of the Grand Trunk Western Railroad, Marine National Exchange Bank of Milwaukee and Outboard Marine Corp.



## history

A. O. Smith Corporation got its start in 1874 in Milwaukee with C. J. Smith. Before the turn of the century the company had introduced the concept of forming steel tubing from sheet metal to fashion a strong, lightweight bicycle frame, and manufactured the first automobile frame from pressed sheet metal. The company went on to become the largest maker of bicycle parts in the U. S., and so far has produced more than 75 million passenger car frames.

The first sale of a passenger car frame was made by A. O. Smith, C. J. Smith's son, to the Peerless Motor Car Company for delivery in 1903. An order in 1906 from Henry Ford for 10,000 frames led the company to build the first mass production frame line. The first truck frame was produced by the firm in 1911.

During World War I, the Smith firm, which had been renamed A. O. Smith Corporation, developed an improved method of electric arc welding and became America's largest manufacturer of bomb casings. During this period the company developed the first coated welding rods in the U. S., a major breakthrough in mass production welding.

A. O. Smith's entry into the petroleum industry came in 1925 when it introduced the first electric-arc welded, high pressure vessel used for cracking crude oil into its refined components. In 1927 the company perfected forming and arc welding of large diameter line pipe from steel plate, and later the much faster flash welding. Subsequently, the company has produced more than 55,000 miles of line pipe.

Cold compressing steel pipe was perfected by A. O. Smith in 1936, making possible a higher strength casing for deep oil well drilling, a product in increasing demand today as wells are drilled to 10,000 feet and deeper.

In 1937 the company acquired the Smith Meter Company of Los Angeles to enter the meter systems field. The service station pump division of Neptune Meter Company was acquired in 1948, and the Erie Meter Systems in 1958.

Experiments in fusing glass to steel began at A. O. Smith in the 1920's and led to the sale in 1933 of the first of 11,000 large, glass-lined brewery storage tanks. A. O. Smith engineers in 1939 developed a glass that could be used with hot water and a water heater design compatible with glass coating process. The company then produced its first glass-lined water heater, a type which today accounts for 95 percent of the industry's output. A. O. Smith's 10 millionth glass-lined, residential water heater was produced in 1969.

The company entered the electric motor field in 1939 when it purchased the Sawyer Electrical Manufacturing Company of Los Angeles. In 1950 Whirl-A-Way Motors of Tipp City, Ohio, was acquired. The Electric Motor division now operates plants in Tipp City and Mt. Sterling, Kentucky. The

Tipp City plant is currently undergoing its 12th expansion since 1950.

Commercial activity was set aside during World War II as the company became the leading producer of bomb casings, hollow steel propeller blades, aircraft landing gear, nose frames and torpedo air flasks. Similar products were manufactured during the Korean conflict, and the A. O. Smith Company Of Texas, an affiliate, now produces bomb casings for the Department of Defense.

A. O. Smith adapted the principles of glass-coated steel to agriculture in 1946, introducing the Harvestore, a huge silo-like feed storage and mechanical bottom-unloading feeding system. More than 25,000 Harvestore units dot the landscape today. The Harvestore principle has also been adapted for commercial and industrial uses in handling bulk materials.

Railroad products became part of the A. O. Smith line in 1961, and in 1962 electrical controls were added when the company acquired the Clark Controller Company.

A. O. Smith formed several joint ventures over the years to meet the demands of business. The first was in 1949 with Armco Steel Corporation when the A. O. Smith Corporation Of Texas was formed. This corporation manufactures line pipe and bomb casings.

In 1961 A. O. Smith joined with The Dow Chemical Company to manufacture glass fiber reinforced epoxy pipe and other products for the electrical, petroleum and chemical industries in a joint venture company named DowSmith Inc. The Mitchell-Bentley Corporation plant in Ionia, Michigan, was purchased by DowSmith in 1964 for the production of specialized vehicle bodies in plastic and steel, and other plastic molding and assemblies.

A. O. Smith purchased Dow's interest in DowSmith in 1966 and in 1969 this portion of the business, along with the manufacture of metal powder, which A. O. Smith introduced in 1966, was integrated into A. O. Smith-Inland Inc., a joint venture of A. O. Smith and Inland Steel Company.

A. O. Smith entered the international field in 1945 and today markets its products around the world. The company has a subsidiary operation in Canada manufacturing electrical controls and jointly owned enterprises in Mexico for the manufacture of auto frames, in Japan for the manufacture of water heaters and one under consideration in England for the manufacture of Harvestores. It has licensing agreements for the manufacture and sale of A. O. Smith products throughout the Free World.

Lloyd B. Smith, the fourth generation of the Smith family to head the firm, was named chairman and chief executive officer in 1967. At that same time, Urban T. Kuechle was elected president.







AR21

*file*



ing substantially. The division began another expansion of the plant at Tipp City, Ohio, the twelfth since the plant was built in 1950. The division's Mount Sterling, Kentucky, plant also increased its production volumes to near capacity during the year.

Nearly all the markets served by the division's custom-engineered motors were strong all through the year, including air conditioning, refrigeration, air movement, domestic water pumping, home dishwashers and other appliances.

Clark Control division introduced the Pulsar, a static d-c motor drive for controlling the speed of one or a series of motors. The Pulsar drive takes A. O. Smith into the rapidly growing OEM market for package drives for thousands of electrical machinery applications. In 1969 sales of Clark's new line of contactors for the air conditioning industry increased strongly, although total sales for the division were down because of a redirection of the business toward the growth areas and the resulting de-emphasis of less promising lines.

Early in 1970 the division will also introduce a new line of compact, high quality general purpose motor starters, further enhancing its reputation as a manufacturer of top quality electrical controls and package drive systems.

A 60,000 square foot addition to the Meter Systems division plant in Erie, Pennsylvania, was completed in 1969. The expansion opens floor space to be used in manufacturing a new line of industrial meters for chemical manufacturers and processors.

Fewer gasoline station pumps were shipped in 1969 by Meter Systems division, although sales of pumps to independent gasoline retailers are on the upswing and should continue to grow in 1970.

Automated moisture control of farmland is provided by Raincat, the electric motor-driven irrigation system manufactured by the Layne & Bowler Pump Co. of Los Angeles.



## CONSUMER PRODUCTS

A. O. Smith Harvestore Products, Inc. sold more than 2,800 structures during 1969, 40% of them as the second, third or fourth installation for the same customers, as it recorded its best year ever. More than 25,000 Harvestore livestock feed storage and handling systems have been erected in the U. S. and are used by farmers to process crops for beef cattle, dairy cows and hogs.

During 1969 Harvestore introduced two new models, including the largest glass-lined feed structure yet produced at 25 feet in diameter by 80 feet in height. Also during 1969, Harvestore started marketing a grinder-blower which prepares the feed crop for storage.

In 1969, on the 30th anniversary of A. O. Smith's entrance into the water heating business, the Consumer Products division sold its 10 millionth residential water heater. Also during 1969, the division sold the largest number of A. O. Smith name brand residential water heaters in its history. Sales of water heaters increased about 6.5% during the year, which is good growth considering the total market grew hardly at all in 1969.

New products were introduced by the division in 1969 to expand its commercial and industrial water heating line, including a 1,340,000 btu unit to be used for hydronic heating or wherever a large supply of hot water is required, including car washes, apartments and coin-operated laundries. New and improved swimming pool heaters were also introduced during the year.

## EMPLOYEE RELATIONS

Employee relations continued good through the year. A. O. Smith negotiated eight labor agreements during 1969, covering 2,800 employees. There were no strikes during the year. During 1970 ten contracts of the company or its subsidiaries expire covering approximately 2,500 employees.

The Raincat can irrigate 160 acres in 12 hours and turns barren land into circles of fertile soil.







Solomon R. Guggenheim Museum  
New York



Financial Plaza  
Newport Beach, California



Home Office, Allstate Insurance Co.  
Northbrook, Illinois

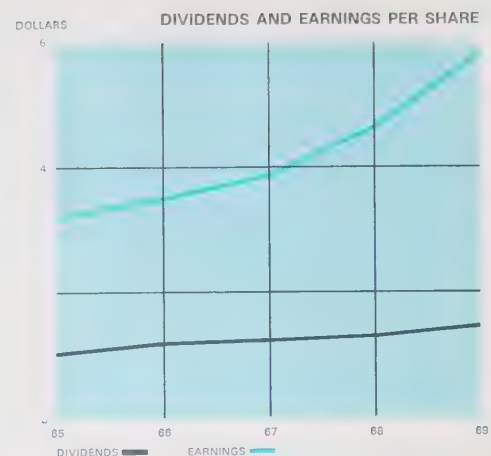
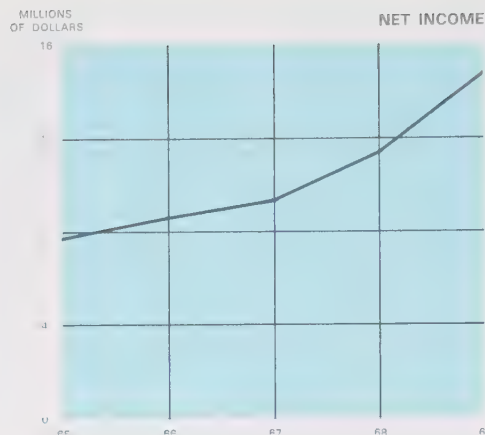
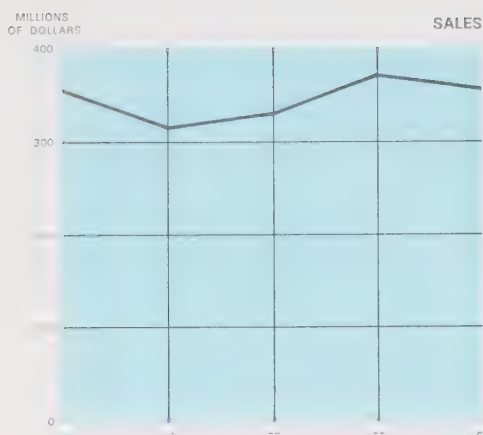


New York State Theater of the  
Lincoln Center for the Performing Arts  
New York

Armor elevators are required to perform heavy-duty service and at the same time form an attractive part of the décor, as illustrated by this installation in an office building in New Jersey. Architects and builders have chosen Armor elevators for some of the country's outstanding buildings, including those shown above.







**SALES VOLUME BY MARKET**  
\$ MILLION

	Adjusted 1969 <sup>(2)(3)(4)</sup>		1969 <sup>(1)(4)</sup>		1968 <sup>(1)(4)</sup>	
	\$	%	\$	%	\$	%
TRANSPORTATION .....	205	48	205	54	234	59
Automobile and truck frames, automotive components, railroad equipment and line pipe						
ELECTRICAL AND ELECTRONIC .....	74	17	71	19	60	15
Electric motors, electrical controls, drive systems and electronic systems						
PETROLEUM .....	40	9	40	10	48	12
Meter systems, valves, oil well casing and reinforced plastic pipe						
BUILDING <sup>(3)</sup> .....	66	16	31	8	28	7
Water heating equipment and elevators						
AGRICULTURE .....	43	10	33	9	25	7
Livestock feed storage, handling and feeding systems, vertical turbine pumps and irrigation equipment						
TOTAL .....	428	100	380	100	395	100
Consolidated sales .....	354		354		373	
Equity in affiliate sales <sup>(4)</sup> .....	27		26		22	
Sales of companies acquired in 1969 prior to the date of acquisition .....	47		—		—	
TOTAL .....	428		380		395	

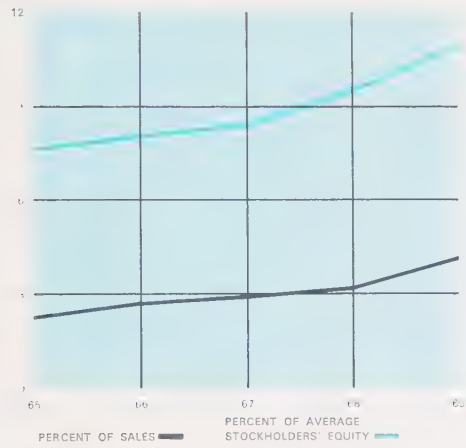
(1) Sales figures for 1969 and 1968 include the company's consolidated sales plus its equity in sales of affiliate companies.

(2) Adjusted 1969 sales include (a) the company's consolidated sales (b) the company's equity in sales of affiliate companies and (c) sales of companies acquired in 1969 prior to the date of acquisition.

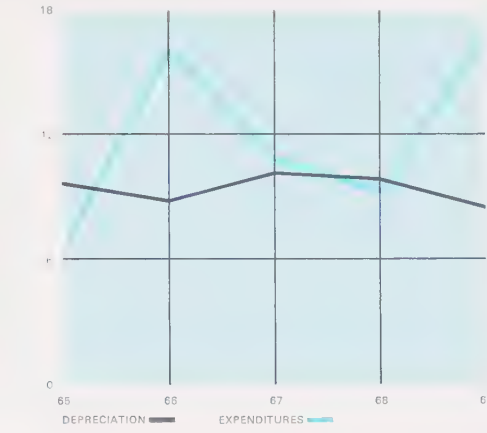
(3) Sales of \$35 million from Armor Elevator and its subsidiaries included in the adjusted 1969 figures are estimates only.

(4) Bomb casing sales for 1969 and adjusted 1969 (\$23 million) and 1968 (\$27 million) of the affiliate, A. O. Smith Corporation Of Texas, are excluded.

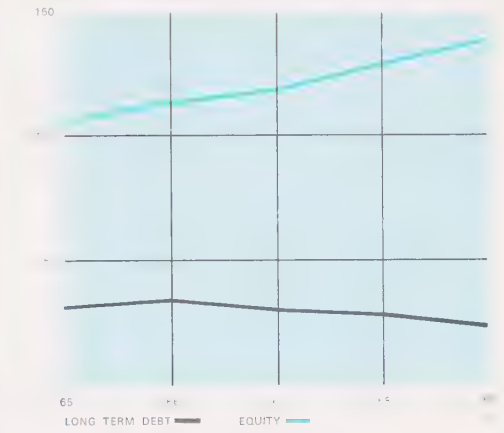
NET EARNINGS AS % OF SALES AND NET EARNINGS AS % OF AVERAGE STOCKHOLDERS' EQUITY



CAPITAL EXPENDITURES AND DEPRECIATION



CAPITALIZATION STOCKHOLDERS' EQUITY AND LONG TERM DEBT



DOLLARS

6.00

5.00

4.00

3.00

2.00

1.00

0

1965

1966

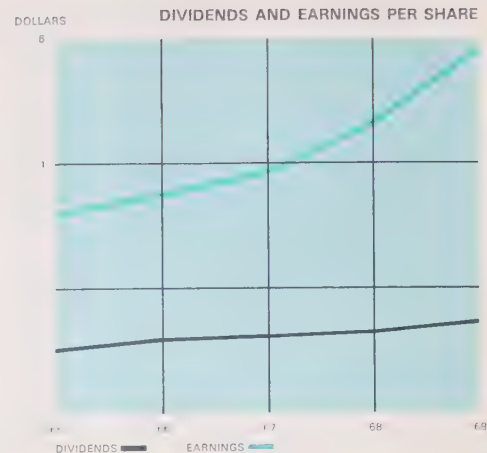
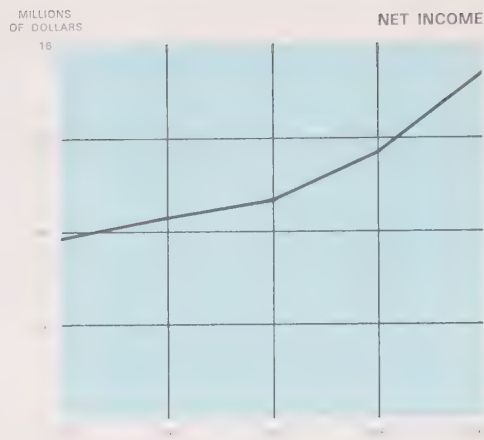
1967

1968

1969

(EARNINGS PER SHARE)

A. O. SMITH CORPORATION  
FINANCIAL REVIEW  
1969



## FINANCIAL REVIEW

In 1969 A. O. Smith Corporation achieved the highest earnings and earnings per share in company history. The year was also noteworthy in that A. O. Smith broadened its operations by acquiring four companies and establishing three joint venture companies.

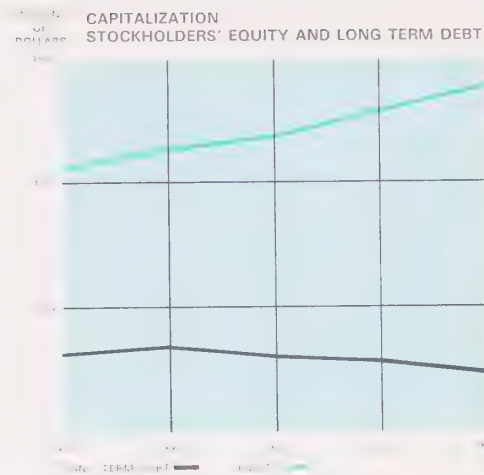
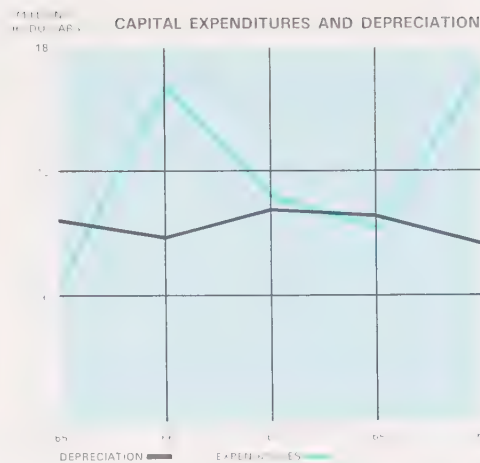
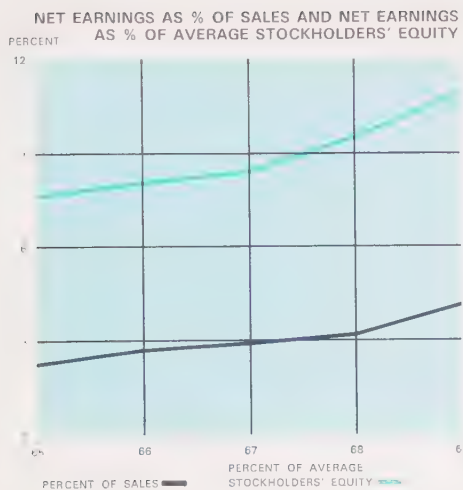
### SALES

Net sales were \$354,518,000, down 5% from the record sales of \$372,798,000 reported in 1968. Significant sales gains were recorded by the Electric Motor division and the company's subsidiary, A. O. Smith Harvestore Products, Inc., while the Automotive and Consumer Products divisions showed moderate improvement. The Clark Control division maintained sales at approximately the same level as 1968. A slight decline in volume was experienced by the Meter Systems division. Tubular Products division sales were lower as a result of the production of line pipe being discontinued in 1968 at the company's plant in Milwaukee, Wisconsin, and lower demand for oil well casing. All line pipe is now being manufactured in the Houston, Texas, plant of A. O. Smith Corporation Of Texas, a 50%-owned affiliate.

The formation of A. O. Smith-Inland Inc., a joint venture entered into with Inland Steel Company in February, 1969, also contributed to the company's lower sales in 1969. Sales of three former A. O. Smith operations comprising this company — powder metal produced in Milwaukee; reinforced plastic pipe made at Little Rock, Arkansas; and molded reinforced plastic products manufactured at Ionia, Michigan — totaling \$14,499,000 for the period March through December, 1969, were not included in the company's consolidated sales.

The tabulation on page 8 shows a breakdown of the company's sales by market, including its equity in sales of affiliates which are not consolidated.





## EARNINGS

Net earnings in 1969 reached \$14,560,000, or \$5.84 per share, up 25% over the \$11,643,000 and \$4.68 per share reported in 1968. Earnings per share for the years 1969 and 1968 were based on 2,492,112 and 2,486,694 average shares outstanding, respectively. Both the net earnings and earnings per share for 1969 were the highest in the company's history, surpassing the previous high of \$13,082,000, or \$5.26 per share, in 1959. It was also the fifth consecutive year in which the company has reported an increase in earnings.

Earnings in 1969 were increased \$474,000, or \$.19 per share, due to a change in the company's method of accounting for certain model changeover costs. These costs will now be amortized over the anticipated life of the related model rather than being charged to operations as they are incurred. The record earnings were achieved exclusive of this change in accounting practice.

Earnings before taxes amounted to \$29,760,000 in 1969, 25% over the \$23,743,000 reported last year as a result of improved performance in most of the company's operations. The federal income tax surcharge reduced 1969 and 1968 earnings per share by \$.53 and \$.44 respectively. Net earnings in 1969 were 4.1% of sales compared to 3.1% in 1968. Return on average stockholders' equity was 10.9% in 1969 and 9.4% in 1968.

## INCOME TAXES and INVESTMENT CREDIT

Income tax provisions amounted to \$15,200,000 in 1969 and \$12,100,000 in 1968 after deducting investment credits of \$490,000 and \$650,000, respectively. The income tax provision represented 51% of pre-tax earnings in both years. The United States income tax returns of the company have been audited by the Internal Revenue Service through December 31, 1964.

## DIVIDENDS

The company paid cash dividends totaling \$3,494,000 in 1969, equal to \$1.40 per share. In 1968 cash dividends totaling \$3,198,000, or \$1.30 per share were paid. Dividends paid in 1969 and 1968 represented 24% and 27% of net earnings, respectively. The 1969 dividend marked the fourth year in a row that cash dividends increased over the previous year. The company has paid cash dividends each year without interruption since 1940.

## ACQUISITIONS

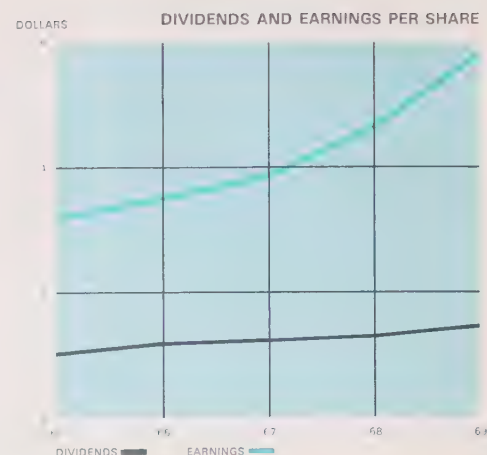
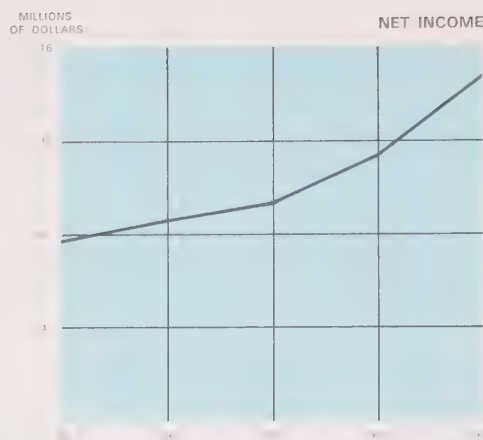
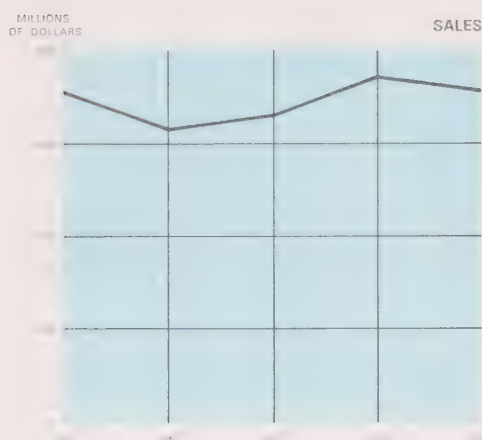
During 1969, A. O. Smith or its subsidiaries purchased four companies for cash. Total sales volume of these companies in 1969 was approximately \$50 million, of which total \$2.5 million was included in A. O. Smith's consolidated sales for the year.

Ninety-six percent of the outstanding stock of Armor Elevator Company of New York was purchased on December 30, 1969, by a wholly-owned subsidiary organized for that purpose. The subsidiary intends to acquire the remaining outstanding shares of Armor as a result of a tender offer of \$11.60 per share. Armor's product line consists of elevator systems, controls and accessories.

On October 1, 1969, a majority interest in Layne & Bowler Pump Company of Los Angeles was acquired. During October the company also made a tender offer to purchase the balance of outstanding shares for \$19.00 per share. On December 31, 1969, A. O. Smith owned 97% of the Layne & Bowler Pump Company stock. Layne & Bowler manufactures vertical turbine pumps and automated irrigation equipment.

The purchase of all of the outstanding shares of stock of Bull Motors, Ltd. was announced on November 4, 1969. Bull Motors manufactures electric motors for elevators, fans, pumps and industrial use.

In November an agreement was reached for A. O. Smith Harvestore Products, Inc. to purchase 100% of the outstanding stock of Advanced Feeding Systems, Inc., a manufacturer of automated livestock feeding equipment. Final arrangements pertaining to this acquisition were concluded in January, 1970.



## AFFILIATES

Three new joint venture companies were formed in 1969. A. O. Smith-Inland Inc. established in February, 1969, in conjunction with Inland Steel Company, assumed all manufacture and marketing of reinforced plastics and powder metal products formerly carried on by three divisions of A. O. Smith Corporation.

Entry into certain international markets was accomplished through the formation of joint venture companies in England and Japan. Manufacture and marketing of Harvestore systems throughout the world, excepting the United States and Canada, will be handled by Howard Harvestore Products, Ltd., a new company jointly owned by Rotary Hoes Ltd., an English company, and A. O. Smith Harvestore Products, Inc. The establishment of Howard Harvestore Products, Ltd. is subject to receipt of a favorable ruling from the U. S. Internal Revenue Service. The former affiliate, Mannesman-A. O. Smith, GmbH, was dissolved as a result of this new venture.

A new company, Tada-Smith Co., was also formed during the year to be owned 40% by A. O. Smith and 60% by Tada Metal Industries Co., of Osaka, Japan. Tada-Smith will manufacture water heating equipment for distribution in the Far East.

Sales of the company's affiliate, A. O. Smith Corporation Of Texas, were \$77,723,000 down \$16,463,000 or 17% from 1968. Lower demand for line pipe in 1969 was a major reason for the decline in volume. In September the U. S. government advised the company that it would not receive a follow-on-contract for the production of bomb casings. Accordingly, plans are being coordinated with the

government to effect an orderly and efficient phase out of the Waco, Texas, operation of the affiliate, A. O. Smith Corporation Of Texas, by February, 1970. In 1969 bomb casing sales amounted to \$46,202,000.

The company's 40% owned affiliate in Mexico, Manufacturas Metalicas Monterrey, S. A., experienced another year of increased sales.

## FINANCE SUBSIDIARY

AgriStor Credit Corporation, the finance subsidiary of A. O. Smith Harvestore Products, Inc., made excellent progress in 1969 in spite of high interest rates prevalent throughout its third year of operation. Pre-tax 1969 earnings were \$344,000 compared to \$90,000 in 1968. AgriStor is planning additional financing programs related to Layne & Bowler Pump Company business in 1970.

## WORKING CAPITAL

On December 31, 1969, the company had \$68,217,000 in working capital, \$16,522,000 or 19% lower than a year ago. Current assets were 2.2 times current liabilities at year end 1969, compared to 2.7 at December 31, 1968. A consolidated statement of source and use of working capital is shown on page 18.

## PLANT, PROPERTY AND EQUIPMENT

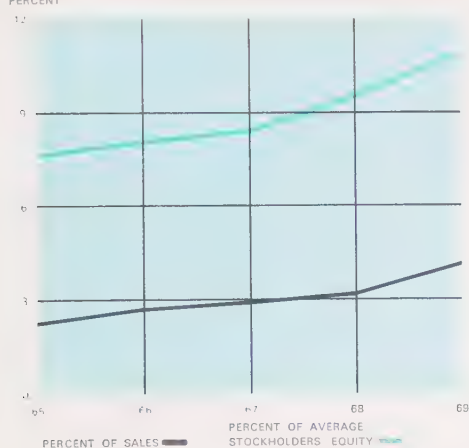
Net investment in plant, property and equipment totaled \$69,305,000, up \$5,290,000 from year end 1968. During the year \$16,275,000 was expended on new additions to plant, property and equipment and depreciation for the year was \$8,528,000.

## DEBT

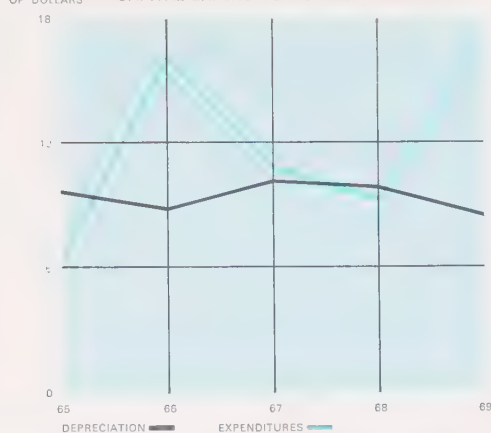
The company's long-term debt, including lease purchase obligations at December 31, 1969, totaled \$26,840,000 compared to \$28,481,000 at the end of 1968. Long-term debt was 19% and 22% of stockholders' equity at the end of the years 1969 and 1968, respectively.

In 1969, the company did not borrow under the \$20 million revolving credit agreement arranged early in 1968 with a group of U. S. banks. The agreement, which expires

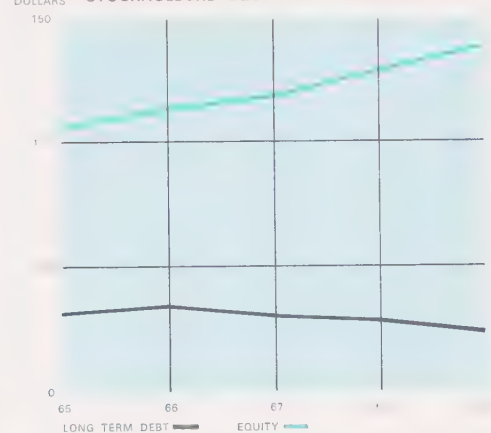
NET EARNINGS AS % OF SALES AND NET EARNINGS AS % OF AVERAGE STOCKHOLDERS' EQUITY



CAPITAL EXPENDITURES AND DEPRECIATION



CAPITALIZATION STOCKHOLDERS' EQUITY AND LONG TERM DEBT



on June 30, 1971, contains an option whereby the company may convert any revolving credit notes into four-year term notes at expiration.

Foreign borrowings consist of a \$1,000,000 Eurodollar loan and the equivalent of \$1,080,000 of English sterling loans to Bull Motors, Ltd. which are guaranteed by A. O. Smith Corporation. Both foreign borrowings were arranged to comply with U. S. Department of Commerce regulations pertaining to foreign investments. A summary of the company's long term debt obligations at year end 1969 and 1968 is included in the consolidated balance sheet on pages 16 and 17.

#### STOCKHOLDERS' EQUITY

Stockholders' equity was \$138,003,000 compared with \$127,956,000 at the end of 1968. During 1969 stockholders approved an increase in the number of common shares which the company is authorized to issue from 3,000,000 to 6,000,000 shares, the reduction of the par value of common shares from \$10 to \$5 per share, and a new class of 1,000,000 shares of preferred stock with a par value of \$1. The newly authorized shares may be used by the company to obtain funds for future expansion of its business, or for possible acquisitions of other companies or product lines, or, if the circumstances should later warrant, to make a stock distribution to stockholders or to declare a stock dividend.

A total of 38,900 common shares were acquired on the open market by the company as a result of a program to ultimately acquire 100,000 shares announced earlier in the year. As of December 31, 1969, there were 2,519,749 shares of outstanding common stock, including 43,540 shares held as Treasury Stock.

#### STOCK OPTIONS

At year end, 95,814 shares (including 4,640 shares of Treasury Stock) were reserved for options outstanding under the company's Restricted Stock Option Plan and Qualified Stock Option Plan approved by stockholders in 1962 and 1964, respectively. Information regarding stock options exercised, granted and cancelled during 1969 is shown below:

	Number of Shares
Outstanding options at December 31,	
1968	83,577
Options granted	15,600
Sub-total	99,177
Less: Options Exercised —	
Restricted Plan	10,279
Qualified Plan	14,388
Less: Options Cancelled —	
Restricted Plan	0
Qualified Plan	2,415
Sub-total	27,082
Options outstanding at December 31,	
1969	72,095

A total of 23,719 shares remain available for granting of stock options under the Qualified Plan. No further options may be granted under the Restricted Plan.





## STATEMENT OF ACCOUNTING PRACTICES

**Depreciation** — Straight line depreciation is utilized except for assets capitalized from 1954 through 1966. The latter assets are depreciated on the sum of the years digits method.

**Retirement Provisions** — Based on actuarially determined current cost plus interest on unfunded liabilities employing the frozen initial liability actuarial method. Provisions are also made to amortize, over 40 years, the past service cost of plans under which the actuarially computed vested benefits exceed the assets of related trusts.

**Model Changeover** — Expenses and identifiable tool costs associated with changing certain models are amortized over the anticipated production units of the model involved or the time period of the model life whichever occurs first.

**Vacations** — Accruals are made to reflect the liability of the corporation to its employees at year end. Generally, liability exists as of December 31 for the subsequent 12 month period.

### Consolidation

1. The accounts of domestic and foreign subsidiaries in which the corporation has more than 50% ownership are fully consolidated.
2. Equity in earnings of 50% owned domestic and foreign affiliates and the finance subsidiaries are reflected in the profits and investment of the corporation.
3. Only dividends received are reported as income for those affiliates in which ownership is less than 50%.

**Research and Development** — These expenses are charged to income as incurred.

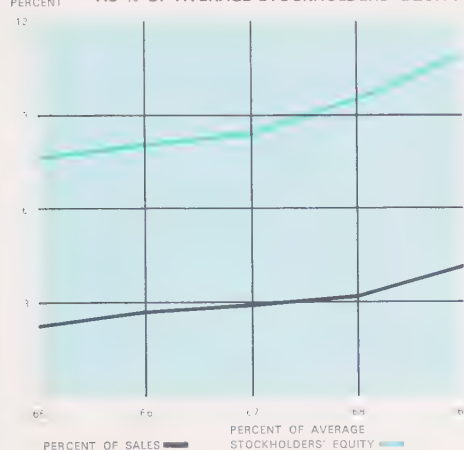
**Inventories** — Productive inventories are carried at standard cost which approximates acquisition cost on a First-in/First-out basis. Supplies are reflected at actual or recent average cost.

**Product Warranty Liability** — Current operations are charged for future claims arising under the terms of various guarantees made in connection with the sale of products. These reserves are classified as current liabilities and applicable income taxes are reflected in prepaid expenses.

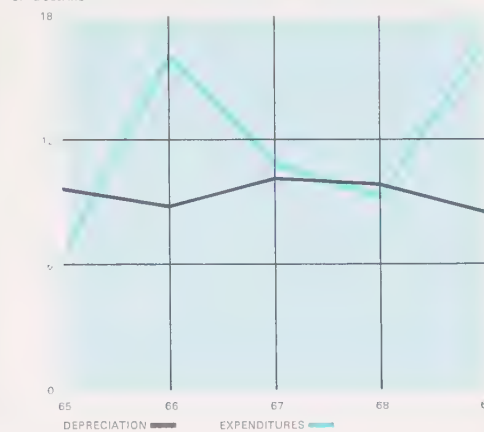
**Lease Purchase Agreements** — Agreements providing for installment purchase have been established as long term liabilities with the associated property capitalized in the accounts in conformity with APB Opinion No. 5.

**Investment Credits** — Credits realized at the time of property acquisition are used to reduce the provision for federal income taxes (flow through method).

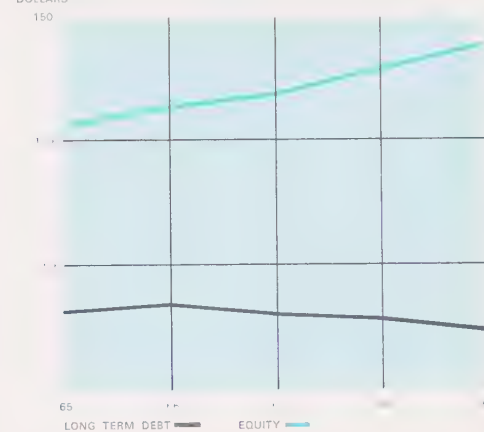
NET EARNINGS AS % OF SALES AND NET EARNINGS AS % OF AVERAGE STOCKHOLDERS' EQUITY



MILLIONS OF DOLLARS CAPITAL EXPENDITURES AND DEPRECIATION



MILLIONS OF DOLLARS CAPITALIZATION STOCKHOLDERS' EQUITY AND LONG TERM DEBT

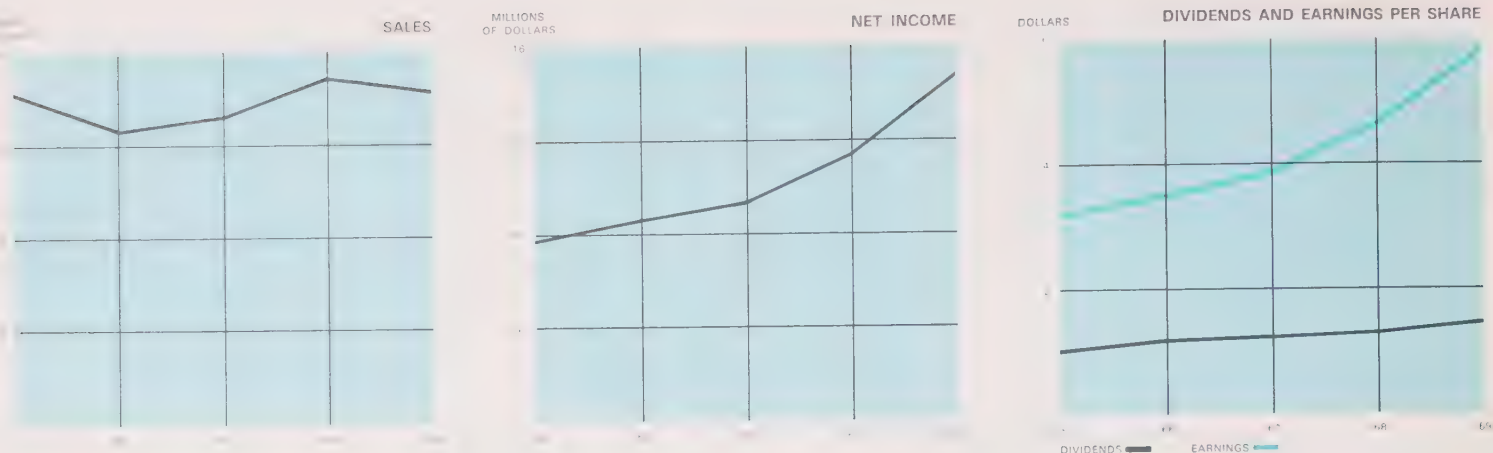


## A. O. SMITH CORPORATION CONSOLIDATED STATEMENT OF EARNINGS AND RETAINED EARNINGS

Years ended December 31, 1969 and 1968

	1969	1968
<b>REVENUES:</b>		
Net sales .....	\$354,518,304	\$372,797,673
Other income — net, including equity in earnings of finance subsidiary and affiliated companies (50% owned) .....	4,041,014	3,943,969
	<u>358,559,318</u>	<u>376,741,642</u>
<b>COSTS AND EXPENSES:</b>		
Cost of goods sold .....	298,065,604	323,794,130
Selling, general and administrative .....	29,288,738	27,446,841
Interest .....	1,445,475	1,758,058
	<u>328,799,817</u>	<u>352,999,029</u>
<b>EARNINGS BEFORE INCOME TAXES .....</b>	<b>29,759,501</b>	<b>23,742,613</b>
<b>PROVISION FOR INCOME TAXES .....</b>	<b>15,200,000</b>	<b>12,100,000</b>
<b>NET EARNINGS (per share 1969 — \$5.84; 1968 — \$4.68) (Note 5) .....</b>	<b>14,559,501</b>	<b>11,642,613</b>
<b>RETAINED EARNINGS:</b>		
Balance at beginning of year .....	90,131,758	86,311,981
	<u>104,691,259</u>	<u>97,954,594</u>
<b>Deduct:</b>		
Cash dividends, per share, 1969 — \$1.40; 1968 — \$1.30 .....	3,493,526	3,198,167
5% stock dividend .....	—	4,624,669
	<u>3,493,526</u>	<u>7,822,836</u>
<b>Balance at end of year (Note 8) .....</b>	<b>\$101,197,733</b>	<b>\$ 90,131,758</b>

See accompanying notes.



## A. O. SMITH CORPORATION CONSOLIDATED BALANCE SHEET

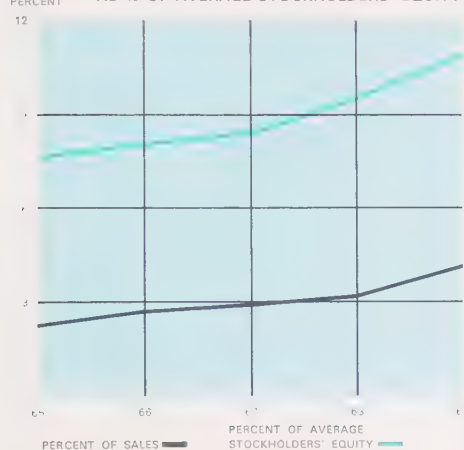
December 31, 1969 and 1968

ASSETS	1969	1968
<b>CURRENT ASSETS:</b>		
Cash .....	\$ 9,295,989	\$ 9,400,477
Marketable securities, at cost (approximates market) .....	1,000,000	19,305,399
Receivables .....	40,706,440	42,765,820
Inventories, at lower of cost (first-in, first-out) or market .....	70,517,900	61,150,563
Prepaid expenses .....	2,088,505	2,021,570
Total current assets .....	123,608,834	134,643,829
<b>OTHER ASSETS:</b>		
Investments in and advances to unconsolidated finance subsidiary and affiliated companies (50% owned) (Notes 1 and 3) .....	14,749,960	7,633,782
Investment in Armor Elevator Company, at cost (Note 2) .....	15,337,752	—
Prepaid pension costs (Note 4) .....	3,600,000	2,700,000
Other, at cost or less .....	4,360,957	2,683,410
Total other assets .....	38,048,669	13,017,192
<b>PLANT AND EQUIPMENT, AT COST:</b>		
Land .....	3,757,666	2,997,793
Buildings (less accumulated depreciation, 1969 — \$24,043,615; 1968 — \$23,311,136) .....	19,071,175	20,152,574
Equipment (less accumulated depreciation, 1969 — \$71,984,316; 1968 — \$73,130,603) .....	46,476,158	40,865,117
Net plant and equipment .....	69,304,999	64,015,484
<b>DEFERRED MODEL CHANGEOVER COSTS, LESS AMORTIZATION (Note 5) .....</b>	<b>1,053,800</b>	<b>—</b>
	<u>\$232,016,302</u>	<u>\$211,676,505</u>

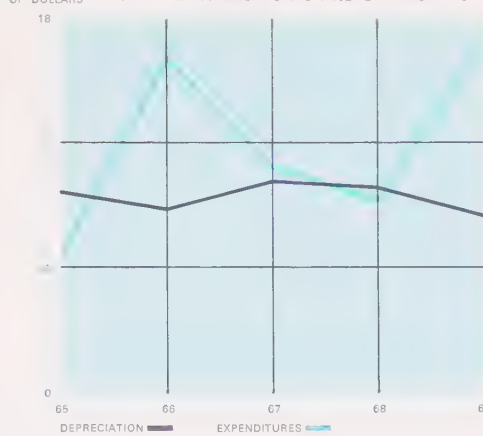
See accompanying notes.



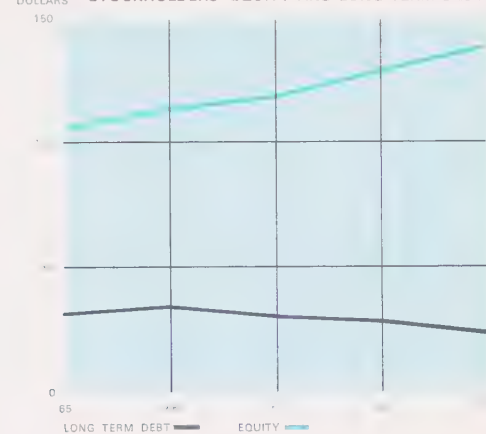
NET EARNINGS AS % OF SALES AND NET EARNINGS AS % OF AVERAGE STOCKHOLDERS' EQUITY



CAPITAL EXPENDITURES AND DEPRECIATION



CAPITALIZATION STOCKHOLDERS' EQUITY AND LONG TERM DEBT



## LIABILITIES AND STOCKHOLDERS' EQUITY

### CURRENT LIABILITIES:

	1969	1968
Notes payable — banks	\$ 2,555,000	\$ —
Accounts payable and accrued liabilities	42,862,928	38,496,976
Income taxes	8,199,407	9,540,785
Current portion of long-term debt	1,775,000	1,867,000
Total current liabilities	55,392,335	49,904,761

### LONG-TERM DEBT:

4¾% notes payable due \$1,600,000 annually — final maturity July 1, 1983	20,800,000	22,400,000
Lease purchase obligations expiring 1984 and 1986, interest rates 4% to 6% per annum	3,960,000	6,081,000
Notes payable — banks, due in 1974, current interest rates 10% to 11¾% per annum	2,080,000	—
Total long-term debt	26,840,000	28,481,000

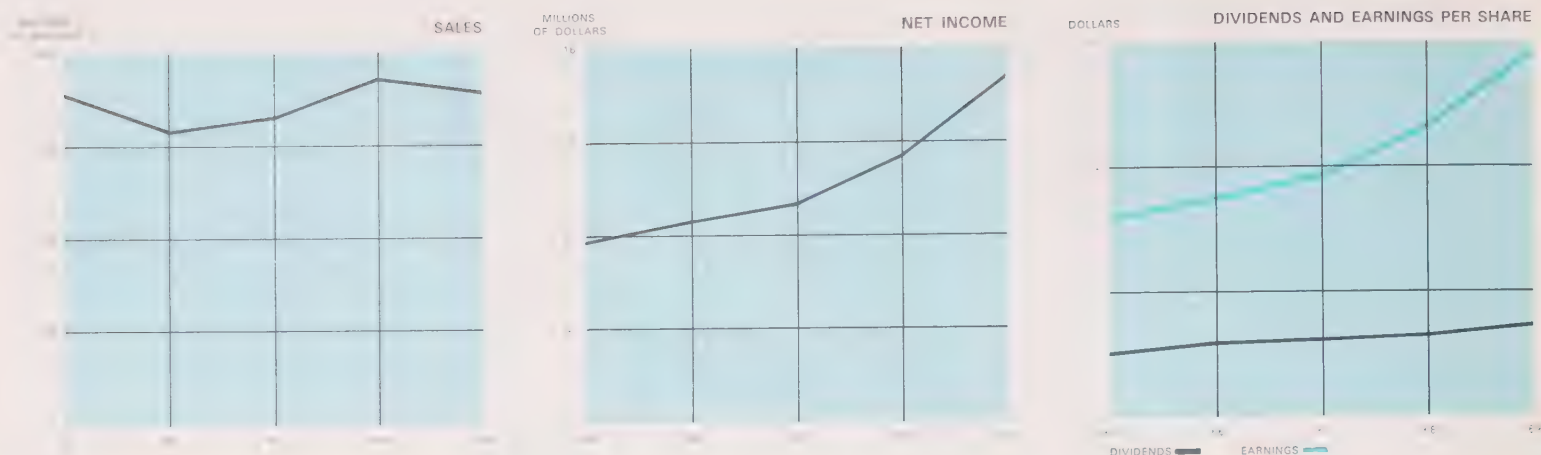
DEFERRED FEDERAL INCOME TAXES	5,415,000	4,490,000
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DEFERRED CREDITS, LESS AMORTIZATION (Note 3)	6,366,437	844,919
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### STOCKHOLDERS' EQUITY (Notes 6, 7 and 8):

Preferred stock, \$1 par value — authorized, 1,000,000 shares; issued, none	—	—
Common stock, \$5 par value:		
Authorized, 6,000,000 shares		
Issued, 1969 — 2,519,749 shares; 1968 — 2,505,361 shares	12,598,745	25,053,610
Capital in excess of par value	26,054,909	13,187,029
Retained earnings	101,197,733	90,131,758
Treasury stock, at cost, 1969 — 43,540 shares; 1968 — 14,919 shares	(1,848,857)	(416,572)
Total stockholders' equity	138,002,530	127,955,825
	<u>\$232,016,302</u>	<u>\$211,676,505</u>

See accompanying notes.



## A. O. SMITH CORPORATION CONSOLIDATED STATEMENT OF SOURCE AND USE OF WORKING CAPITAL

Years ended December 31, 1969 and 1968

	1969	1968
<b>SOURCE OF WORKING CAPITAL:</b>		
Operations:		
Net earnings	\$14,559,501	\$11,642,613
Depreciation	8,528,001	9,874,829
Plant and equipment disposals	336,796	1,023,155
Deferred federal income taxes	925,000	1,440,000
Other items not affecting working capital	743,876	(202,336)
	<u>25,093,174</u>	<u>23,778,261</u>
Proceeds from sale of operating assets of certain divisions, less provision for income taxes on gain thereon (Note 3)	6,433,284	—
Long-term borrowings — banks	2,080,000	—
Proceeds from exercise of stock options	700,028	—
	<u>34,306,486</u>	<u>23,778,261</u>
<b>USE OF WORKING CAPITAL:</b>		
Cash dividends paid	3,493,526	3,198,167
Payments on long-term debt	1,775,000	1,867,000
Plant and equipment expenditures	16,275,462	9,258,452
Investments in subsidiaries and affiliates	24,796,383	1,913,000
Prepaid pension costs	900,000	2,700,000
Purchase of treasury stock	1,719,298	—
Deferred model changeover expenditures (Note 5)	1,254,626	—
Other	614,760	(172,391)
	<u>50,829,055</u>	<u>18,764,228</u>
(DECREASE) INCREASE IN WORKING CAPITAL	<u>\$ (16,522,569)</u>	<u>\$ 5,014,033</u>

See accompanying notes.

### REPORT OF CERTIFIED PUBLIC ACCOUNTANTS

The Board of Directors and Stockholders  
A. O. Smith Corporation

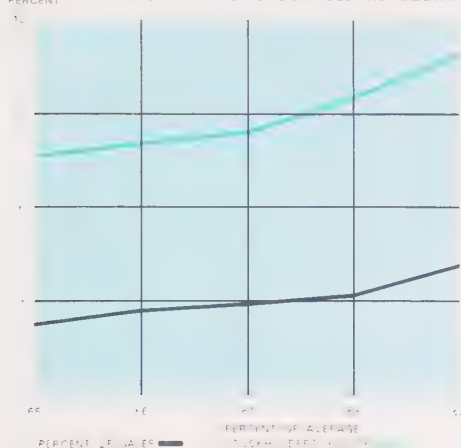
We have examined the accompanying consolidated balance sheet of A. O. Smith Corporation and subsidiaries at December 31, 1969 and the related consolidated statements of earnings, retained earnings and source and use of working capital for the year then ended. We have also examined the accompanying balance sheet of AgriStor Credit Corporation at December 31, 1969 and the related statement of earnings and retained earnings for the year then ended. Our examinations were made in accordance with generally accepted auditing standards, and accordingly included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances.

In our opinion, the statements mentioned above present fairly (1) the consolidated financial position of A. O. Smith Corporation and subsidiaries at December 31, 1969, the consolidated results of their operations and the source and use of their working capital for the year then ended and (2) the financial position of AgriStor Credit Corporation at December 31, 1969 and the results of its operations for the year then ended, each in conformity with generally accepted accounting principles applied on a basis consistent with that of the preceding year, except for the change in accounting for model changeover costs by A. O. Smith Corporation as explained in Note 5 to their consolidated financial statements.

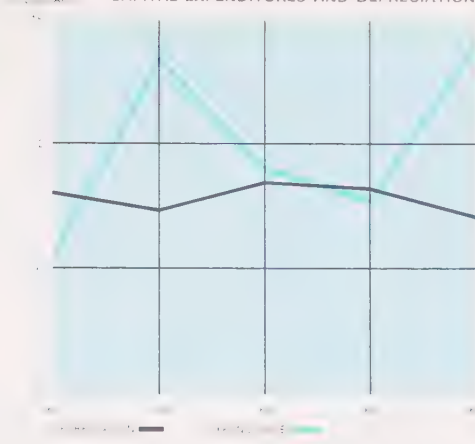
ARTHUR YOUNG & COMPANY  
Milwaukee, Wisconsin

January 16, 1970

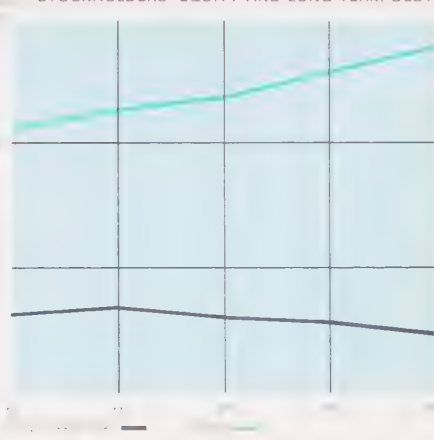
NET EARNINGS AS % OF SALES AND NET EARNINGS AS % OF AVERAGE STOCKHOLDERS' EQUITY



CAPITAL EXPENDITURES AND DEPRECIATION



CAPITALIZATION STOCKHOLDERS' EQUITY AND LONG TERM DEBT



## A. O. SMITH CORPORATION NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

December 31, 1969

### 1. Principles of consolidation

The consolidated financial statements include the accounts of the Company and all subsidiaries except for its wholly-owned finance subsidiary, Agri-Stor Credit Corporation, and Armor Elevator Company (see Note 2). The investments in and advances to the finance subsidiary and affiliates (50% owned) are carried at cost plus equity in undistributed net earnings since acquisition.

### 2. Acquisitions

The accounts of two subsidiaries acquired for cash as of October 1, 1969 have been included in the consolidated financial statements since the date of acquisition. Operations of these two subsidiaries were not material in amount for this period.

On December 30, 1969 the Company, through a wholly-owned subsidiary specifically organized for that purpose, acquired for cash approximately 96% of the outstanding capital stock of Armor Elevator Company. The consolidated statement of earnings does not include the operations of Armor. The investment has been shown as a separate item under other assets pending final determination as to the allocation of the purchase price that will be made upon completion of appraisal and valuation of the assets acquired. The Subsidiary has a tender offer outstanding, expiring in February, 1970, to acquire the remaining outstanding capital stock of Armor. Should all of the remaining outstanding shares be tendered the cost thereof will be approximately \$657,000.

### 3. Affiliated company

The Company sold, for cash, an undivided one-half interest in the net assets of three of its operating divisions to Inland Steel Company on February 28, 1969. The Company and Inland Steel Company each transferred their one-half interest in the net assets of the three divisions to A. O. Smith-Inland Inc., a newly organized corporation, in exchange for 50% of its outstanding common stock and \$1,000,000 in 7% notes. The consolidated statement of earnings includes the operations of these three divisions, not material in amount, for the two months ended February 28, 1969 and the Company's equity in the operations of A. O. Smith-Inland Inc. for the ten months ended December 31, 1969.

The gain on the sale of the one-half interest in the assets of the three divisions, less income taxes applicable thereto, together with the excess of the Company's equity in A. O. Smith-Inland Inc. over the net book value of the interest in the assets

transferred to that company, have been deferred and will be amortized to earnings over an 11-year period, the average remaining life of the buildings and equipment transferred.

### 4. Retirement plans

The Company and its consolidated subsidiaries have non-contributory pension plans covering substantially all employees. Total pension expense for 1969 and 1968 was \$4,115,000 and \$3,460,000, respectively, which amounts include current cost plus interest on unfunded prior service cost for all plans. In addition, the expense includes, for two plans (for which the actuarially computed value of vested benefits under the plans exceed the assets of related trusts by \$17,900,000 as of December 31, 1969), a 40-year amortization of the prior service cost. The present policy is to fund pension cost accrued. The board of directors has authorized contributions to the pension trusts of \$3,600,000 in excess of amounts charged to earnings; this amount is shown as prepaid pension costs in the balance sheet and the applicable deferred federal income taxes have been provided.

### 5. Model changeover costs

In 1969 the Company adopted the policy of deferring model changeover costs (tooling and facility rearrangement related to specific models) and amortizing these costs to operations over the anticipated life of the related model, generally four years. Previously such costs were charged to operations as incurred. As a result of this change in accounting, 1969 net earnings were increased \$474,000 (\$.19 per share). For income tax purposes, the Company continues to deduct these costs as incurred and deferred federal income taxes have been provided.

### 6. Stock options

At December 31, 1969, 53,399 shares of the authorized but unissued common stock were reserved for issuance under the qualified stock option plan adopted in 1964. Options for 29,680 shares (of which options for 14,080 shares are currently exercisable) were outstanding at December 31, 1969, at per share prices ranging from \$28.10 to \$47.38. Options for 1,800 and 13,800 shares, granted in 1969 at per share prices of \$40.25 and \$44.63, respectively, are exercisable one year after date of grant at an annual maximum of one-fourth of the optioned shares. All option prices represent market values at date of grant and expire five years from date of grant. Options for 14,388 shares were exercised in 1969 at per share prices ranging from

\$25.40 to \$32.20 (total proceeds \$426,011) and the excess of the proceeds over the par value of the shares issued of \$354,071 was credited to capital in excess of par value. Options for 2,415 shares were cancelled in 1969.

At December 31, 1969, 4,640 shares of treasury stock and 37,775 shares of authorized but unissued common stock were reserved for options outstanding under a restricted stock option plan adopted in 1962. The per share option prices are \$25.04 and \$27.51 for 463 shares and 41,952 shares, respectively. The options expire ten years from date of grant and are exercisable at a maximum of one-half in any year. Options for 26,263 shares were exercisable under this plan at December 31, 1969. Treasury stock was issued for options for 10,279 shares that were exercised in 1969 at per share prices of \$20.63 and \$27.51 (total \$274,027) and the excess of the cost of the treasury stock issued over the proceeds of the options exercised of \$12,996 was charged to capital in excess of par value. No further options can be granted under this plan.

### 7. Preferred and common stock

The stockholders approved, on April 9, 1969, the authorization of 1,000,000 shares of \$1 par value preferred stock, an increase in the authorized common stock to 6,000,000 shares, and a decrease in the par value of the common stock from \$10 to \$5; accordingly common stock was reduced and capital in excess of par value was increased \$12,569,390.

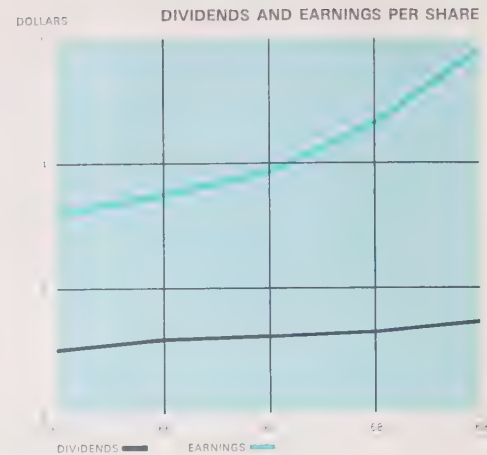
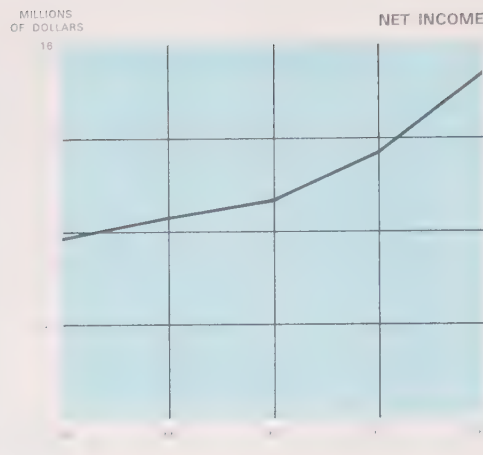
### 8. Restrictions on dividend payments

The agreements relating to the 4¾% notes payable contain provisions restricting the payment of cash dividends and the retirement or acquisition of shares of the Company's common stock. The amount of retained earnings not so restricted at December 31, 1969, was \$28,700,000.

### 9. Depreciation

For financial statement purposes, depreciation on plant and equipment additions prior to January 1, 1954, and subsequent to December 31, 1966, is computed using the straight-line method; depreciation on additions between the above two dates is principally computed using accelerated methods. For income tax purposes the Company uses accelerated methods and guideline depreciation. Deferred federal income taxes are provided for the excess of depreciation claimed for income tax purposes over depreciation provided for financial statement purposes.





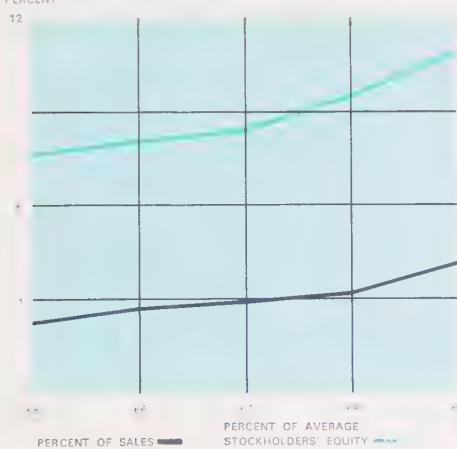
## AGRISTOR CREDIT CORPORATION BALANCE SHEET

December 31, 1969 and 1968

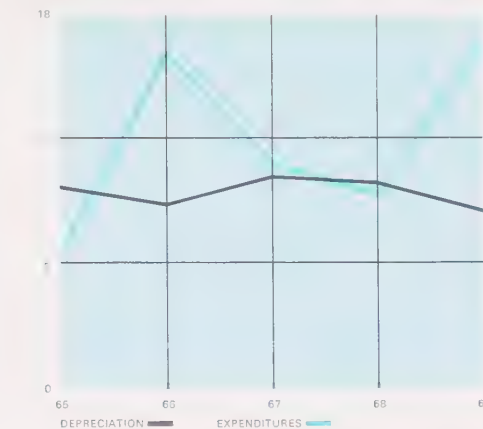
ASSETS	1969	1968
Cash .....	\$ 252,587	\$ 260,490
Installment contracts receivable (including amounts due within one year — 1969, \$2,314,517; 1968, \$1,234,699) .....	13,322,103	8,385,119
Less:		
Unearned finance charges .....	3,962,313	2,486,577
Allowance for credit losses .....	118,825	93,372
	<u>4,081,138</u>	<u>2,579,949</u>
	9,240,965	5,805,170
Short term notes receivable from dealers .....	3,003,389	1,627,490
Other assets .....	163,526	50,169
	<u>\$12,660,467</u>	<u>\$ 7,743,319</u>
 LIABILITIES AND STOCKHOLDER'S EQUITY		
Liabilities:		
Commercial paper .....	\$ 5,238,000	\$ —
Short-term notes payable, including \$55,000 subordinated in 1968 .....	3,845,850	5,617,500
Accounts payable and accrued liabilities .....	52,901	74,920
Income taxes .....	174,998	20,319
Reserve for credit losses withheld from dealers .....	294,601	178,646
Total liabilities .....	<u>9,606,350</u>	<u>5,891,385</u>
Stockholder's equity:		
Common stock, \$1,000 par value:		
Authorized 5,000 shares		
issued and outstanding — 1969, 2,875 shares; 1968, 1,825 shares (wholly owned by A. O. Smith Harvestore Products, Inc.) .....	2,875,000	1,825,000
Retained earnings .....	179,117	26,934
Total stockholder's equity .....	<u>3,054,117</u>	<u>1,851,934</u>
	<u>\$12,660,467</u>	<u>\$ 7,743,319</u>

See accompanying note.

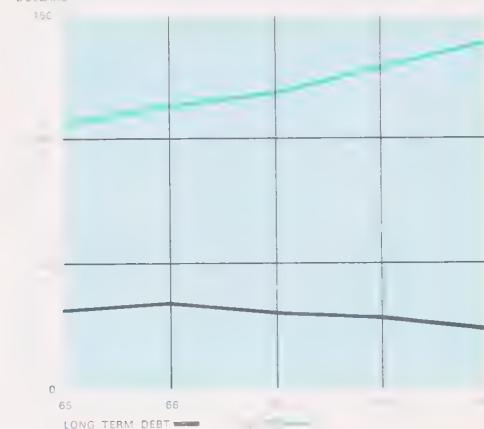
NET EARNINGS AS % OF SALES AND NET EARNINGS AS % OF AVERAGE STOCKHOLDERS' EQUITY



CAPITAL EXPENDITURES AND DEPRECIATION



CAPITALIZATION STOCKHOLDERS' EQUITY AND LONG TERM DEBT



## AGRISTOR CREDIT CORPORATION STATEMENT OF EARNINGS AND RETAINED EARNINGS

Year ended December 31, 1969 and 1968

	1969	1968
Income:		
Earned finance income .....	\$1,231,030	\$450,679
Expenses:		
General and administrative .....	212,223	184,684
Interest .....	674,624	176,228
	<u>886,847</u>	<u>360,912</u>
Earnings before income taxes and extraordinary credit .....	344,183	89,767
Provision for income taxes .....	192,000	44,000
Earnings before extraordinary credit .....	<u>152,183</u>	<u>45,767</u>
Extraordinary credit—reduction of income taxes arising from carry forward of prior year operating loss .....	—	23,681
Net earnings .....	<u>152,183</u>	<u>69,448</u>
Retained earnings (deficit) beginning of year .....	26,934	(42,514)
Retained earnings end of year .....	<u>\$ 179,117</u>	<u>\$ 26,934</u>

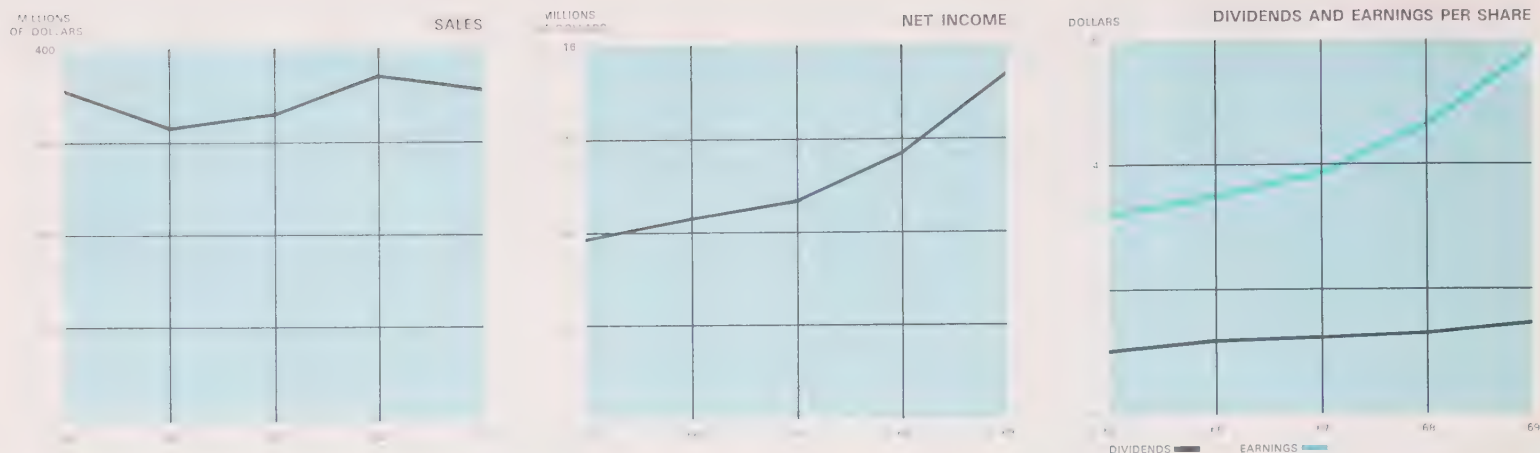
See accompanying note.

## AGRISTOR CREDIT CORPORATION NOTE TO FINANCIAL STATEMENTS

December 31, 1969

### Limitation of bank indebtedness

The Company and A. O. Smith Corporation have entered into an agreement in connection with bank borrowings whereby the aggregate borrowings by the Company shall not exceed 300% of its capital (defined as net worth plus subordinated debt). The agreement also provides that the net worth of the Company shall not be less than \$500,000. Under the terms of the agreement A. O. Smith Corporation or its subsidiary, A. O. Smith Harvestore Products, Inc. agrees that it will make such additional investments (equity or subordinated debt) in the Company as may be necessary, subject to certain limitations, to prevent violation of the provisions outlined above.



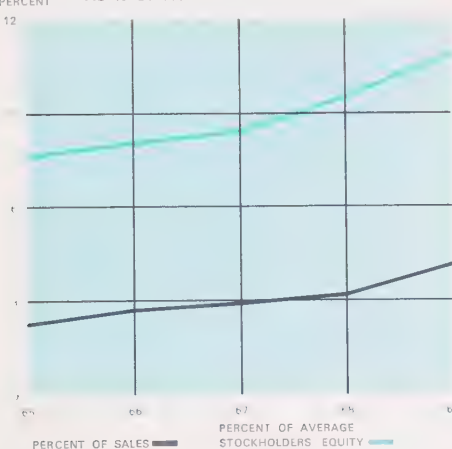
**A. O. SMITH CORPORATION TEN-YEAR FINANCIAL SUMMARY (\$'000 Omitted Except for Per Share Values)**

	1969	1968	1967	1966
NET SALES .....	354,518	372,798	329,976	318,433
NET EARNINGS .....	14,560	11,643	9,627	8,738
Per Share (2) .....	5.84	4.68	3.87	3.51
As % of Sales .....	4.1%	3.1%	2.9%	2.7%
As % of Average Stockholders' Equity .....	10.9%	9.4%	8.4%	8.0%
CASH FLOW (Earnings and Depreciation Only) .....	23,088	21,518	19,799	17,580
Per Share (2) .....	9.26	8.65	7.96	7.07
CASH DIVIDENDS .....	3,494	3,198	2,808	2,567
Per Share (As Declared) .....	1.40	1.30	1.20	1.15
Per Share (2) .....	1.40	1.29	1.13	1.03
As % of Net Earnings .....	24.0%	27.5%	29.2%	29.4%
STOCK DIVIDENDS .....	—	5%	5%	5%
WORKING CAPITAL				
Cash and Marketable Securities .....	10,296	28,706	8,299	9,558
Receivables .....	40,706	42,766	41,598	39,415
Inventories and Other Current Assets .....	72,607	63,172	67,379	67,866
Total Current Assets .....	123,609	134,644	117,276	116,839
Current Liabilities .....	55,392	49,905	37,551	38,509
Net Working Capital .....	68,217	84,739	79,725	78,330
Current Ratio .....	2.2	2.7	3.1	3.0
CAPITALIZATION				
Stockholders' Equity .....	138,003	127,956	119,440	112,621
Book Value Per Share (3) .....	55.73	51.38	48.07	45.33
Long-Term Debt:				
Notes Payable .....	22,880	22,400	24,000	27,000
Lease Purchase Obligations .....	3,960	6,081	6,348	6,601
Total Long-Term Debt .....	26,840	28,481	30,348	33,601
Total Capital .....	164,843	156,437	149,788	146,222
Long-Term Debt As % of Total Capital .....	16.3%	18.2%	20.3%	23.0%
PLANT AND EQUIPMENT				
Gross .....	165,333	160,457	157,040	151,165
Accumulated Depreciation .....	96,028	96,442	91,385	85,919
Net .....	69,305	64,015	65,655	65,246
CAPITAL EXPENDITURES .....	16,275	9,258	10,979	16,318
ANNUAL DEPRECIATION .....	8,528	9,875	10,172	8,842
AVERAGE NUMBER OF EMPLOYEES .....	12,844	13,754	13,728	13,356

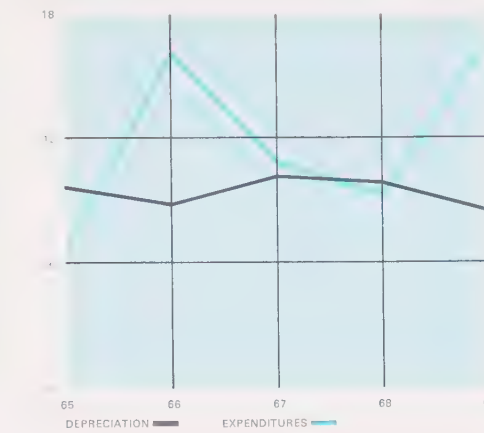
(1) In 1963 the Company changed its fiscal year from July 31 to December 31. Data shown is for the short period August 1, 1963 to December 31, 1963.  
(2) Net Earnings, Cash-Flow, and Cash Dividends Per Share are based on average shares outstanding in each year adjusted for subsequent stock dividends.



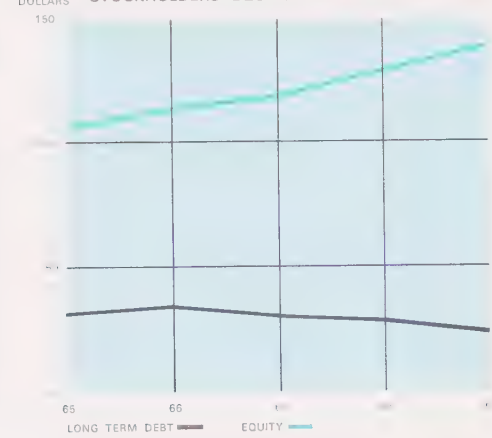
NET EARNINGS AS % OF SALES AND NET EARNINGS AS % OF AVERAGE STOCKHOLDERS' EQUITY



CAPITAL EXPENDITURES AND DEPRECIATION



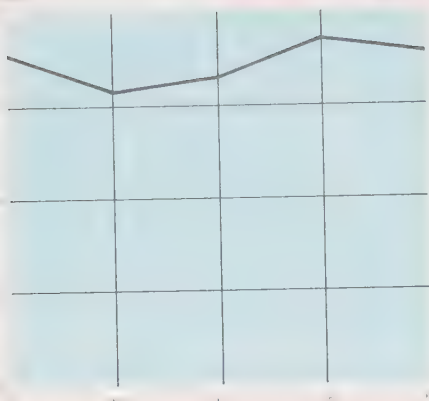
CAPITALIZATION STOCKHOLDERS' EQUITY AND LONG TERM DEBT



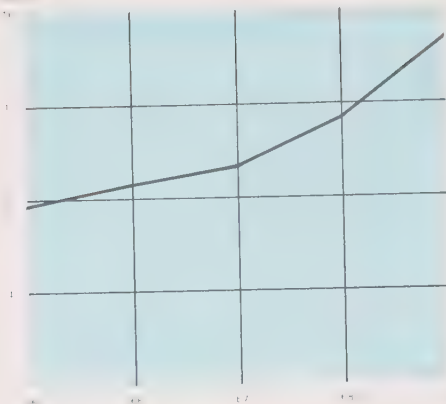
1965	1964	1963 (1)	1963	1962	1961	1960
358,441	299,852	112,585	281,819	249,053	221,952	265,178
7,918	1,512	1,819	5,513	5,922	(1,370)	5,557
3.18	.61	.73	2.22	2.38	(.55)	2.23
2.2%	.5%	1.6%	2.0%	2.4%	—	2.1%
7.6%	1.5%	1.8%	5.6%	6.0%	—	5.6%
17,493	10,387	5,361	13,664	14,501	6,799	12,936
7.03	4.18	2.16	5.49	5.83	2.73	5.20
2,148	2,147	536	2,145	2,145	3,415	4,173
1.00	1.00	.25	1.00	1.00	1.60	2.00
.86	.86	.22	.86	.86	1.37	1.68
27.1%	142.0%	29.5%	38.9%	36.2%	—	75.1%
—	—	—	—	—	2%	2%
14,155	7,434	12,313	10,198	9,175	14,891	11,546
35,520	38,947	36,322	36,262	32,555	22,155	25,627
59,178	62,811	49,919	54,168	44,657	39,659	45,171
108,853	109,192	98,554	100,628	86,387	76,705	82,344
31,507	42,874	22,508	23,726	19,536	15,323	16,591
77,346	66,318	76,046	76,902	66,851	61,382	65,753
3.5	2.5	4.4	4.2	4.4	5.0	5.0
106,445	100,675	102,498	101,216	101,740	96,898	101,683
42.85	40.52	41.30	40.79	41.00	39.05	40.98
31,000	32,440	32,570	32,570	25,000	26,000	27,000
—	—	—	—	—	—	—
31,000	32,440	32,570	32,570	25,000	26,000	27,000
137,445	133,115	135,068	133,786	126,740	122,898	128,683
22.6%	24.4%	24.1%	24.3%	19.7%	21.2%	21.0%
128,610	137,012	127,975	126,958	116,200	114,148	110,526
77,933	78,138	74,083	72,258	64,237	60,444	56,429
50,677	58,874	53,892	54,700	51,963	53,704	54,097
6,596	16,657	3,491	8,581	8,422	8,714	12,133
9,575	8,875	3,542	8,151	8,579	8,169	7,379
14,752	14,146	13,091	12,609	11,228	11,668	12,331

(3) Book Value Per Share is based on year-end stockholders' equity and shares outstanding at year end adjusted for subsequent stock dividends.

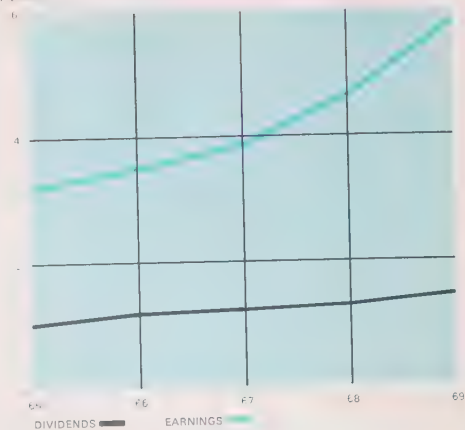
SALES



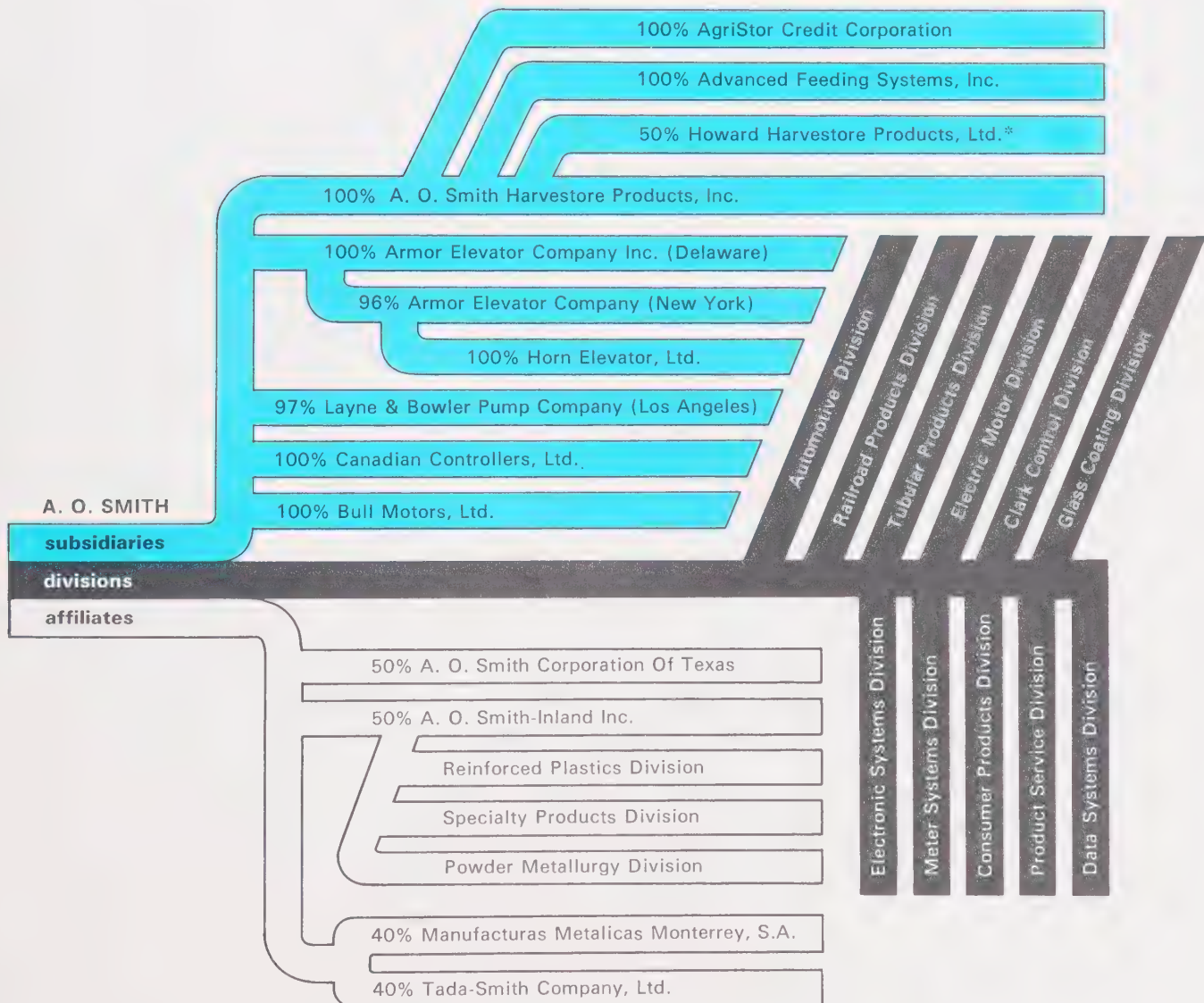
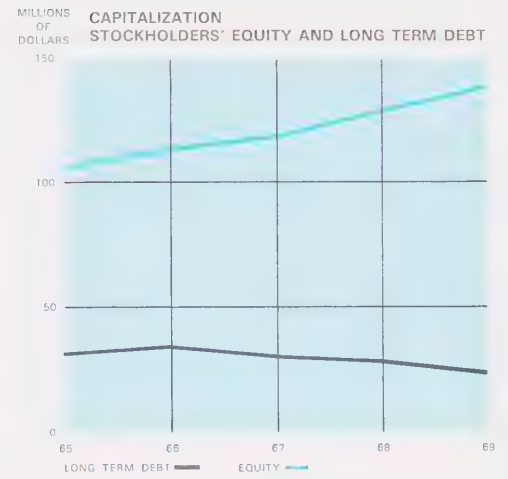
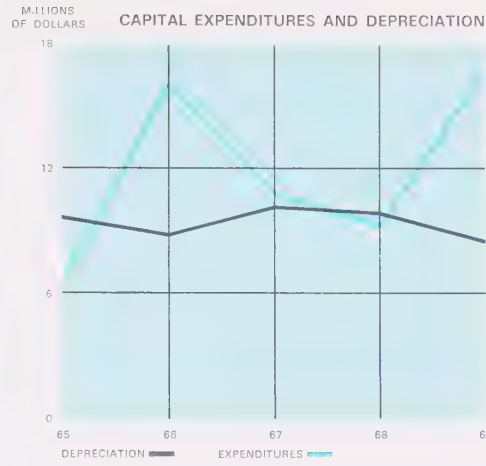
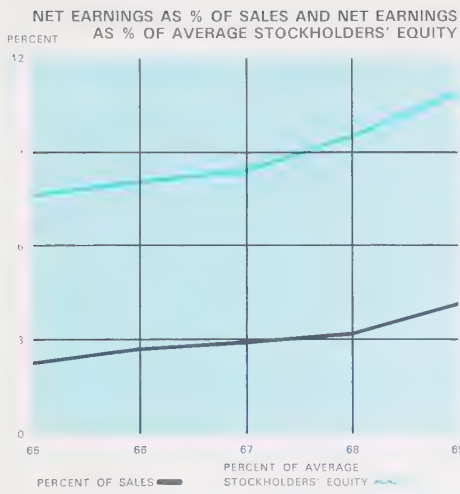
NET INCOME



DIVIDENDS AND EARNINGS PER SHARE







\*Final approval pending.



An interview with Robert F. McGinn, vice president of research and development, A. O. Smith Corporation.

*If you were asked by a stockholder or by an analyst to describe technology at A. O. Smith, how would you go about it?*

Perhaps the best way to approach a discussion about technology at A. O. Smith is to break it down into three general categories of technical development as related to materials, processes and then products.

Let's start by talking about materials and specifically about plastics. One of the most exciting things we have in plastics today is our Capsel®. This relates to our new encapsulated water heater which uses polyurethane foam to replace both the fiber glass insulation and the steel outer jacket. We have been working on the Capsel for about two years and are now into pilot production.

Foam plastics, of course, are widely used today in the furniture, automotive, and building fields. Most of the insulating foams that you read about are more or less rigid types. We are directing our efforts and our applications to what we call a flexible polyurethane. The outer skin of this material is most unique and we think customer reaction is going to be quite enthusiastic.

*Is there anything proprietary about this for A. O. Smith?*

Yes, indeed. A key ingredient of our special formula is a fire retardant material. We have gone through Underwriters Laboratories' approval on panel shapes and are now going through product certification. Up to this point no one has gone through Underwriters with these types of foam materials.

*Do you see A. O. Smith as a supplier of this material to other companies?*

Not really. I suspect that we would prefer to sell our technology on a license basis rather than the material. I can look down the road and see this material applied in the automobile, appliance, and other industries.

## TECHNOLOGY ON THE MOVE



Glass fiber reinforcing threads are filament-wound on mandrels at the Little Rock, Arkansas, plant of A. O. Smith-Inland Inc. This process is one of the first steps in the manufacture of glass fiber reinforced plastic pipe, and is the basic source of its remarkable strength.







### *In what other areas of plastic are we working?*

One of the fields of special attention is glass reinforced plastic molded parts at A. O. Smith-Inland. I believe we are coming on very strong in molding processes. Our sheet molding compound appears to be among the best in the industry and we are well ahead in the whole area of molding large reinforced plastic parts. With our match metal die know-how, our sheet molding materials and the general technology we have acquired in this field, our final products are among the finest in quality, strength and appearance on the market today.

All this adds up to what you might call a kind of systems capability. In addition to our molding ability, we can take many of these components and put them together in a subassembly or a complete assembly and finish them to customers' specifications.

While we are still talking about plastics, let's look at the reinforced plastic pipe operations of A. O. Smith-Inland. There we have a proprietary molding compound for our plastic pipe fittings. We take glass tape and chop it up and make it into a so-called "pre-preg". This is an in-process preparation which results in a superior molding ingredient out of which comes pipe fittings which have

The Meter Systems division manufactures products which both measure and reduce static electricity in flowing petroleum. Its Static Charge Sensor was named one of the 100 most significant new technical products of 1969 by Industrial Research Magazine.



unusually good properties. We also sell the molding compound to other companies so there we are back in the materials end again.

### *What other materials work are we doing?*

A. O. Smith has always been very active in ceramics and glass coating. This is an original and proprietary field. It's quite highly specialized and, of course, we have built two of our major operations pretty much on glass coating — water heaters and A. O. Smith Harvestore Products. Over the years we have developed about 3,500 special formulas and one would think you might run out of areas to mine. Yet this continues to be a very productive area. We are constantly improving our coatings both for Harvestore and for water heaters.

We have some new horizons that look extremely encouraging right now. For instance, there is the field of high temperature coatings and special coatings for oxidizing applications in the metal processing industry. We have developed a high temperature coating which works up to 2,300 to 2,400 degrees. The idea behind this is that with our coating we can prevent high temperature material loss due to scaling, protecting even special alloys.

### *Is this a process A. O. Smith is going to be able to sell?*

Right now we are working with some possible customers. We are quite excited. Coatings of this type could open up a new business for us, besides making significant contributions to the industry.

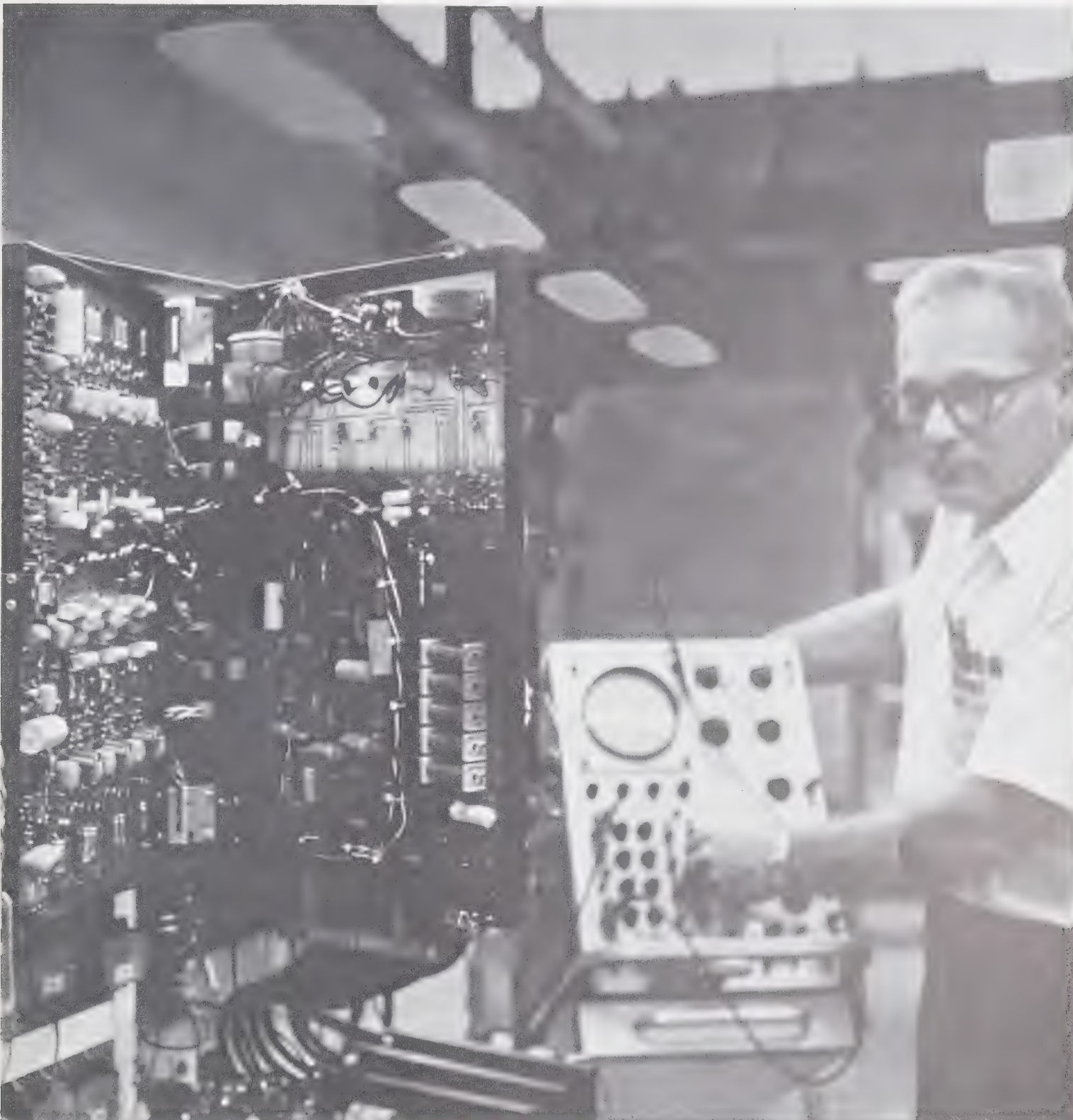
### *What is A. O. Smith doing in the field of metallurgy?*

We are one of the country's largest users of steel so we have a continuing interest in the technology of metals. And here, as is the case in our other businesses, we are in the forefront of the newest metals technology — metal powder. A. O. Smith-Inland steel powder is considered the best on the market, and our alloy powders, or so-called free machining type, are the leaders of the industry. We have under development other alloy powders which also look most promising.

### *What is A. O. Smith doing in manufacturing technology?*

Over the years, A. O. Smith has been fundamentally a high volume, low cost manufacturer. We





The Pulsar, a static d-c motor drive, undergoes operational testing in the Cleveland, Ohio, plant of the Clark Control division. The Pulsar's regulator uses integrated circuitry operational amplifiers, each containing up to 15 transistors and 15 diodes in a tiny encapsulated unit, eliminating conventional soldered connections between the 30 separate components.

achieved this position through sophisticated manufacturing techniques. One of the areas in which we have excelled is in welding, and we continue to do a great amount of research in welding at A. O. Smith.

We have spent considerable money and are still devoting major effort to one of the most important new welding techniques — electron beam welding. We have in our laboratory, electron beam welders operating in an almost complete vacuum and others welding out of vacuum. We are experimenting with electron beam welding on structural members, water heaters, electric motors and metal powder parts.

We are also heavily involved in automating our welding processes. New adaptive, that is, sensing and self-correcting control devices, have been developed and are being applied to our manufacturing processes. In the same vein, of course, we are investigating computer control and utilization in our manufacturing processes.

As I said earlier, welding processes are almost basic throughout the company. At the Houston, Texas, plant of the A. O. Smith Corporation Of Texas, we just spent several million dollars to convert from flash welding of line pipe to a new proprietary double submerged arc welding process. This pipe welding process consists of a two-pass submerged arc weld; the first pass being made on the outside and the final pass on the inside of the pipe. The process employs the latest techniques in submerged arc welding — that is the use of three a-c welding electrodes operated in close spacing with controlled arc interaction. Our process is unique in the industry and results in high quality welding with production rates necessary in the line pipe industry.

#### *What is A. O. Smith doing in electronics?*

Let's start with some of the new things we are doing in solid state electronics at Clark Control, Meter Systems, Electronic Systems and the Electric Motor divisions. Three of these divisions already have products on the market. At Clark Control it's the Pulsar solid state static d-c drive and at the Meter Systems it's the electronic instrumentation for turbine meters. At the Electric Motor division we are working on solid state controls

which will probably be incorporated in the next year or so. Our Electronic Systems division manufactures the CardCon® and FleetCon® fluid handling control systems which incorporate the newest integrated circuits and computer memories.

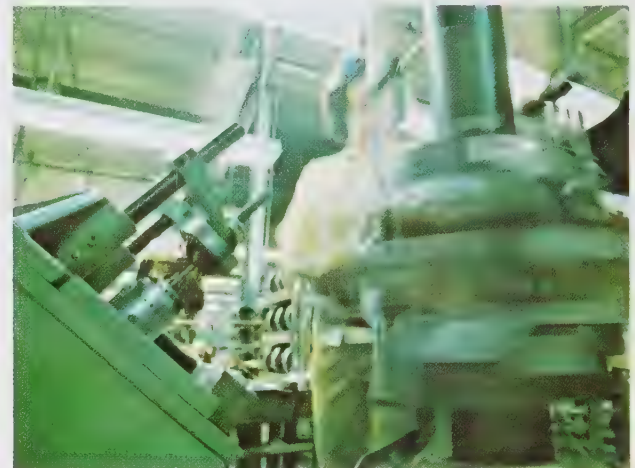
*With all these divisions working on solid state electronics, is there an interchange of technical knowledge among units?*

Most certainly. In fact, our central R&D group has the responsibility, among others, to make sure that there is a pooling of knowledge and a coordination of activities among divisions.

#### *How about some of the other new areas?*

At the Meter Systems division we have introduced the Static Charge Reducer and Static Charge Sensor systems. These products were developed in conjunction with American Oil Company and

Wound stators are produced by high speed coil winding and insertion machines in the Tipp City, Ohio, and Mt. Sterling, Kentucky, plants of the Electric Motor division. These machines are the most advanced in the industry.



the Static Charge Sensor was selected as one of the 100 most significant new technical products in 1969 by Industrial Research Magazine. Statics, really electrostatics, is a whole new area of technology, quite unexplored and yet vitally important in not only fluid handling systems but many other processes where static electricity is created.

Another new field of interest is related to environmental waste control. For instance, recently



our Milwaukee plant became engaged in a joint research program with the local municipal sewerage operation to virtually eliminate phosphate contamination by utilizing our used acid from our steel cleaning operations. If successful, two environmental waste disposal problems will be solved.

The Harvestore group is active in developing solutions to the problems associated with animal wastes and our Consumer Products division is investigating the field of domestic wastes.

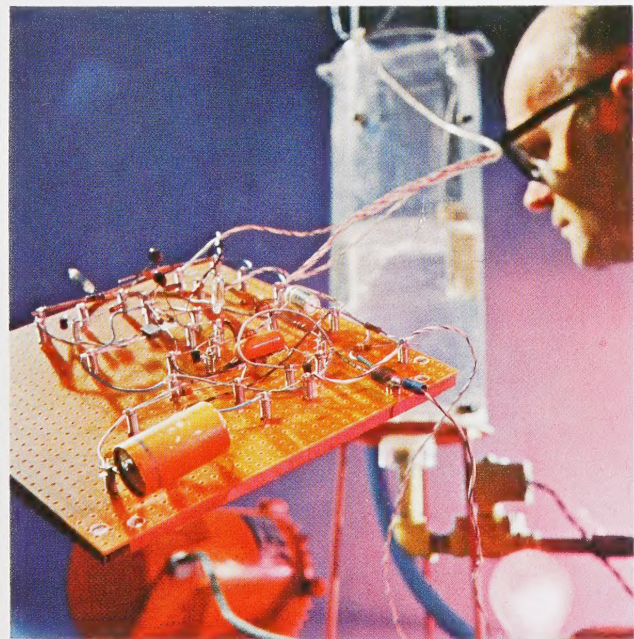
*Are all divisions actively involved in new product development?*

Very definitely yes. We have decentralized our R&D activities so that each division has the responsibility to develop its new products. At the same time we support a corporate R&D facility to extend the capabilities of our divisions in new fields of technologies.

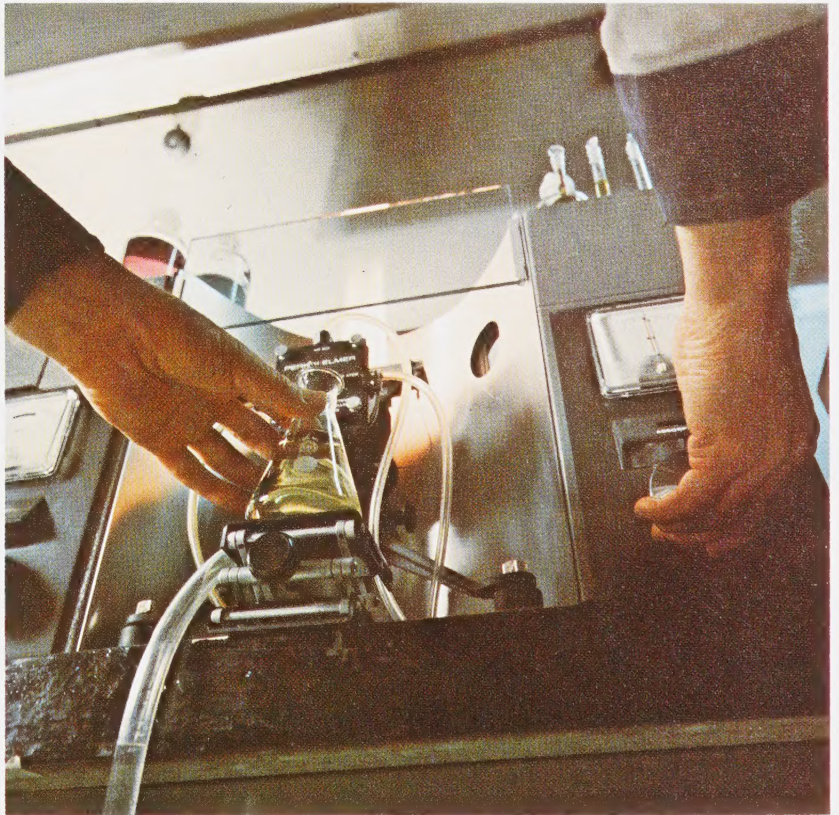
Perhaps I can illustrate the role of our corporate group by briefly describing a project we are doing for our Electric Motor division. As you well know, noise today is fast becoming one of the undesirables of our environment. In order to contribute to our electric motors' performance, we have undertaken a project to predict the magnetic noise generated in motors for air conditioning by means of computer programs or simulation.

I believe this is a very exciting time for our scientists, engineers and technicians. Throughout its history A. O. Smith has always felt that research was an important ingredient of growth. In every field in which we have been involved we have been a technological leader. This stems from the company philosophy that nothing is good enough today if a better way can be found tomorrow. The job of technology at A. O. Smith is to make the tomorrows come today.

Long life solid state devices replace relays and mechanical switches in this experimental circuit being used to test a static control for an electric motor. Under development are new controls for A. O. Smith electric motors.



An atomic absorption spectrophotometer in the Process Control Laboratory in Milwaukee can determine the chemical composition of solutions. It is used to analyze for metallic elements, both major and trace.





## DIRECTORS

**William O. Beers**  
*President, Kraftco Corporation*

**F. Shepard Cornell**  
*Retired Executive Vice President*

**Elisha Gray II**  
*Chairman of the Board and  
Chief Executive Officer,  
Whirlpool Corporation*

**Urban T. Kuechle**  
*President*

**Arthur O. Smith**  
*President, Arthur Smith Industries*

**Lloyd B. Smith**  
*Chairman and Chief Executive Officer*

**Morris J. Vollmer**  
*Vice President, Finance*

**Carlton P. Wilson**  
*President, Robert W. Baird & Co.*

## OFFICERS

### GENERAL OFFICE

**Lloyd B. Smith**  
*Chairman and Chief Executive Officer*

**Urban T. Kuechle**  
*President*

**John H. Brinker**  
*Vice President, Marketing —  
Domestic and International*

**Allan C. Crane**  
*Vice President and Controller*

**Paul R. Ellis**  
*Vice President, Manufacturing and  
Planning*

**James N. Johnson**  
*Vice President, Secretary and  
General Counsel*

**Charles H. LeClaire**  
*Vice President, Employee and  
Public Relations*

**Robert F. McGinn**  
*Vice President, Research and  
Development*

**Robert A. Rietz**  
*Vice President and Treasurer*

**Morris J. Vollmer**  
*Vice President, Finance*

**Richard A. Wendorf**  
*Vice President, Procurement*

**Donald L. Dunaway**  
*Assistant Treasurer*

**John H. Lungren**  
*Assistant Secretary and  
Deputy General Counsel*

**J. Robert Mitchell**  
*Assistant Treasurer*

## OFFICERS

### OPERATIONS

**Henry O. Allen**  
*Group Vice President,  
Industrial Products*

**John P. Diesel**  
*Group Vice President,  
Construction Products*

**Milton E. Morgan**  
*Group Vice President,  
Consumer Products*

**Dennis J. O'Connell**  
*Group Vice President,  
and President, A. O. Smith-Inland Inc.*

**John R. Parker**  
*Group Vice President,  
Contract Products*

**James E. Borchert**  
*Vice President, Automotive*

**Wallace T. Halket**  
*Vice President, Consumer Products*

**William R. Heckman**  
*Vice President, Clark Control*

**John M. Richardson**  
*Vice President, Electric Motor*

**John J. Stahl**  
*Vice President,  
and President, A. O. Smith  
Harvestore Products, Inc.*

**David H. Stieber**  
*Vice President, Assistant General  
Manager, Automotive*

**Thomas A. Sullivan**  
*Vice President, Meter Systems*

### TRANSFER AGENT

Manufacturers Hanover Trust  
Company  
New York, New York

### REGISTRAR

The Chase Manhattan Bank  
New York, New York

### AUDITORS

Arthur Young & Company  
Milwaukee, Wisconsin

## DIVISIONS

**Automotive Division**  
**Milwaukee, Wisconsin; Granite City, Illinois**

Passenger automobile frames and structural parts; truck, bus and trailer frames; wheel suspension control arms —

**Tubular Products Division**  
**Milwaukee, Wisconsin**  
Oil well casing —

**Railroad Products Division**  
**Milwaukee, Wisconsin**  
Hydra-Buffer® and Cushion Ride freight car hydraulic cushioning devices; steel running boards and brake steps for freight cars; Boxweld brake beams; other brake equipment; glass fiber reinforced hopper car hatch covers; structural sign frames —

**Electric Motor Division**  
**Tipp City, Ohio; Mount Sterling, Kentucky**  
Custom engineered motors for manufacturers of air conditioning, heating and commercial refrigeration equipment, domestic dishwashers, home water pumping systems and other specialized products —

**Clark Control Division**  
**Cleveland, Ohio; Lancaster, South Carolina**  
Clark packaged drives and drive systems for industrial processes; electrical controls for industrial and commercial applications —

**Meter Systems Division**  
**Erie, Pennsylvania**  
Positive displacement and turbine meters with accessories for liquid flow; liquid control valves; static charge measurement and reduction devices; remote electronic and electro-mechanical readout instruments; gasoline pumps; self-service dispensing systems —

**Consumer Products Division**  
**Kankakee, Illinois; Stratford, Canada**  
Permaglas® and Glascote® residential and commercial water heaters; Burkay® commercial and industrial water heaters; swimming pool heaters; glass-lined storage tanks; hydronic heating equipment —

**Electronic Systems Division**  
**Menomonee Falls, Wisconsin**  
Electronic key and card control fluid handling and data acquisition systems for petroleum loading and fleet fueling —

**Glass Coating Division**  
**Milwaukee, Wisconsin**  
Glass coating —

**Data Systems Division**  
**Milwaukee, Wisconsin**  
Data processing services —

**Product Service Division**  
**Chicago, Illinois; Atlanta, Georgia; Union, New Jersey**

## SUBSIDIARIES\*

**Layne & Bowler Pump Company**  
**Los Angeles, California**  
Raincat automated center pivot irrigation systems; vertical turbine pumps —

**Armor Elevator Company, Inc. (Delaware)**  
**New York City; Louisville, Kentucky; Los Angeles, California**  
Complete geared, gearless and hydraulic elevator systems, elevator controls and signal systems; elevator door operators and accessories —

**A. O. Smith Harvestore Products, Inc.**  
**Arlington Heights, Illinois; Kankakee, Illinois; Elkhorn, Wisconsin**  
Harvestore glass-fused-to-steel, farm storage systems; Permaglas® bulk storage and handling units for commercial, industrial and municipal applications; Liquid manure handling and utilization systems —

**Canadian Controllers Ltd.**  
**Scarborough, Canada**  
Clark packaged drives and drive systems for industrial processes; electrical controls for industrial and commercial applications —

**Bull Motors, Ltd.**  
**Ipswich, Norfolk, England**  
Electric motors for elevators, fans and pumps and industrial use; chilled iron rolls used in manufacture of breakfast cereals —

**AgriStor Credit Corporation**  
**Milwaukee, Wisconsin**  
Installment financing —

**Advanced Feeding Systems, Inc.**  
**Eureka, Illinois**  
Automated feeders; roller mills, conveyors and weighers used in feeding beef cattle, dairy cows and hogs —

**Horn Elevator, Ltd.**  
**Toronto and Vancouver, Canada**  
Complete geared, gearless and hydraulic elevator systems, elevator controls and signal systems; elevator door operators and accessories —

## AFFILIATES\*

**Manufacturas Metalicas Monterrey, S. A., Monterrey, N. L., Mexico**  
Truck frames, bumpers for pickup trucks, assembled passenger car frames and automotive stampings —

**Tada-Smith Company, Ltd.**  
**Osaka, Japan**  
Residential water heaters and glass-lined hot water storage tanks in Japan for Far Eastern distribution —

**A. O. Smith Corporation Of Texas**  
**Houston, Texas**  
Welded line pipe —

**A. O. Smith-Inland Inc.**  
**Powder Metallurgy Division**  
**Milwaukee, Wisconsin**  
EMP® molding-grade steel powder for precision parts for automotive, appliance and other industries; electrode-grade iron powder and high purity melting stock —

**Reinforced Plastics Division**  
**Little Rock, Arkansas**  
Red Thread®, Green Thread® and Chemline® glass fiber reinforced epoxy and vinylester pipe and fittings; glass fiber reinforced electrical and industrial products —

**Specialty Products Division**  
**Ionia, Michigan**  
Specialized bodies in plastic and steel and parts for automotive and other transportation industries; other reinforced plastic moldings and assemblies —

**Howard Harvestore Products, Ltd.**  
**Harleston, Norfolk, England**  
Harvestore livestock feed and storage systems for distribution throughout the world with the exception of North America —

**Layne & Bowler (Australasia) Pty. Ltd.**  
**Villa Wood, New South Wales, Australia**  
Turbine pumps; spray irrigation equipment —

**Layne-Bowler Dik Turbin Pompalari**  
**Sanayi ve Ticaret A.S.**  
**Ankara, Turkey**  
Turbine pumps —

\*Of A. O. Smith or its subsidiaries.





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